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ABSTRACT

The first part of this document contains reports of committee activities and discussions in six areas: cultural cooperation, higher education and research, general and technical education, out-of-school education, educational documentation and research, and modern languages. The second part of the document includes the full texts of papers presented at an educational research symposium on the theme of the socioculturally handicapped, with particular regard to preprimary and primary education. Three papers report on research projects. Four papers discuss the concepts, problems, and remedies of sociocultural handicaps; the role of compensatory education; current trends in European preschool research; and the psychological and sociological characteristics of disadvantaged children. A final paper gives an overview of the symposium and summarizes the conclusions reached. (DT)

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The Information Bulletin *which is distributed free of charge three times a year in an English and a French edition, informs on the educational, cultural and scientific activities of the Council of Europe and reprints important policy documents of European interest in these fields.*

First Part

Council for Cultural Co-operation

The twenty-fourth session of the CCC which was held in Strasbourg from 7th to 13th December 1973 brought together delegates from twenty member States, representatives of the Consultative Assembly of the Council of Europe, the Chairmen of the CCC's Permanent Committees and observers from UNESCO, OECD, the Commission of European Communities and the European Parliament.

After having heard the Statements by the Representatives of the Consultative Assembly and the reports of the ad hoc Committees and Steering Groups on Permanent Education, Educational Technology, Educational Documentation and Educational Research, the CCC examined the final programme-budget for 1974, and the programme priorities for 1975-76. It selected the following seven major projects: permanent education (pilot projects); EUDISED; equivalence of university degrees and diplomas; reform and development of curricula in higher education; pre-school education; technical and vocational education with particular reference to mobility of manpower; content, structures and methods of adult education.

Below is given a summary of the discussions and conclusions.

REPORTS OF THE AD HOC COMMITTEES AND STEERING GROUPS

Permanent education

Mr. B. Schwartz (France), Director of the Permanent Education Project, presented the consolidated report on the first phase of the evaluation of pilot experiments in progress in the member countries and gave a brief account of the work of the Steering Committee on Permanent Education. On completion of this first phase of evaluation, the group was able to establish a new guide for the analysis of experiments thus facilitating considerably evaluation in the following phase. The new guide would be reviewed on completion of the second phase of evaluation, which would include visits to inspect eight experiments in the early months of 1974.

The group's aim, Mr. Schwartz said, was to study these pilot experiments, to discover whether there was a common ground between the various experiments, i.e. between the different levels of education, and whether the principles were practicable and being applied and, if not, where the discrepancy between principles and practice lay.

He also stressed that the Steering Group's work should not be regarded as fundamental research, but rather as reflection at a distance. Their purpose was to conduct a comprehensive education project or rather to set their sights on a comprehensive approach to education with the aim of avoiding the perpetuation in member countries of piecemeal reforms which did not conform to an overall pattern and were hence detrimental to permanent education. The consolidated report on the second phase of evaluation might already, it was hoped, permit tentative conclusions.

Educational technology

The CCC was informed of the activities of the Steering Group on Educational Technology and of its work plan composed of three programmes: A, B and C. Programme A is concerned with prospects of co-operation in the field of multi-media systems, Programme B with

the implementation of a certain number of pilot projects dealing with modern language learning, mathematics, and ecology and environment. The purpose of Programme B is to test, in specific cases, development factors bearing on Programme A. Programme C is concerned with preparation of studies on the evaluation of multi-media systems and the publication of these studies, if possible in 1975.

Several delegations indicated their great interest in the educational technology programme of the CCC and, in particular, in the pilot project on modern language learning for adults, which has made considerable progress and which has now developed sufficiently to form the nucleus of an intensified project within the framework proposed by the Steering Group.

Mention was also made of the pilot project on ecology and the environment, the implementation of which had been deferred by the CCC in March 1973. This project, which the Steering Group wished to revive, was intended to be basically an educational technology project using ecology merely as a theme or vehicle for exemplifying multi-media systems development as was the case with modern languages. This project would, moreover, make possible a combination of systems analysis with community development and thus illustrate a typical learner- and problem-centred approach. Since the project on out-of-school mathematics would be completed in 1974, the Steering Group felt that Programme B would be jeopardised if it were left with only one pilot project: that on modern language learning.

The CCC approved, as a whole, the programme proposed by the Steering Group on Educational Technology. It envisaged to reintroduce as from 1975, the pilot project (Programme B) on the theme of ecology and environment, hoping that it would be possible, at the 25th session, to authorise the launching of the proposed intensified project on multi-media systems development.

Educational documentation and information

A report on the EUDISED project was presented to the CCC, informing it, in particular, of the completion of the present phase of the project by the publication in October 1973 of the *EUDISED Standards, Format, Character Representation 1973,* (Documentation Centre for Education in Europe, 126 pp) and by the forthcoming publication by Mouton Publishers of the English, French and German versions of the *EUDISED Thesaurus.* With these two instruments it would be possible in future to establish multinational networks of documentation and information in any field of education.

Educational research

The progress of the work in the field of educational research as well as a new activity at present under study in the Secretariat were communicated to the CCC. This activity was proposed by the Working Party on General Issues of European Co-operation in Educational Research and Development which held its first meeting in Paris in November 1973. It dealt in particular with the possibilities of improving educational research co-operation in Europe by proposing that member governments should select from among their important national research and development projects those where they would welcome closer and regular contacts with similar or related projects in other member States. The principal researchers working on such projects would meet at colloquies to be organised by the Council of Europe in order to compare their methods and results and to discuss common problems.

As proposed by the Secretariat a first experimental colloquy will be held in autumn 1974 on the subject of compensatory education for the disadvantaged.

The Secretariat stressed the interest it was taking in this proposed activity which it felt would be in line with the general policy of the CCC. The exchange of experience on these major national projects of educational research, development and innovation, would contribute to the CCC's role as a focus of educational co-operation in Europe.

STATEMENTS BY THE REPRESENTATIVES OF THE CONSULTATIVE ASSEMBLY

Mr. E. Petersen, Chairman of the Committee on Science and Technology, commented on the three aspects of the widespread activities of his Parliamentary Committee, namely, the creation of a European Science Foundation, European co-operation in specific scientific fields and the next Parliamentary and Scientific Conference.

The Committee on Science and Technology wants to promote co-operation among European scientists. It now has working groups active in seven fields: space bio-physics, aerospace physiology and medicine, polar research, geodynamics, the Rhine Valley Water Table, separation and detection techniques in biology and thrombosis research. The Committee's purpose is to reinforce the links between parliamentarians and scientists.

The same approach can be observed in the activities of the Committee on Culture and Education. Its Vice-Chairman, Mr. F. Karasek, reported on the Committee's efforts to establish links between parliamentarians and artists. The Symposium on Freedom of Expression and the role of the artists in present-day society, held in Florence in June 1973, was the first opportunity to put such a policy into practice.

The general feature which participants had found most striking was the profound malaise among artists on the eve of the major East-West meeting at Helsinki, and the fear that the quest for short-term political and economic agreements would take place to the detriment of freedom of expression; this might well shake to their very foundations the cultural values shared by the western democracies. This disquiet which had emerged repeatedly, found expression in Recommendation 718 (1973) in which the Assembly urged the member governments to give high priority, within the framework of the Conference on European security and co-operation, to the concerns voiced at the Florence Symposium and to see to it in particular "that the desirable and necessary improvement in relations between countries with different social systems is accompanied by practical measures designed to guarantee freedom of expression in compliance with the standards defined in Article 10 of the European Convention on Human Rights and Fundamental Freedoms".

Mr. Karasek drew the attention of the CCC in particular to certain passages in the texts adopted by the Assembly regarding continuation of the work done in Florence, and especially to the drafting of a European artists' charter, the definition of the artist's social status, and the definition of the basis of an educational syllabus designed to awaken curiosity and cultural and artistic sensibility.

In his turn, Mr. G. Kahn-Ackermann, Vice-President of the Assembly and Chairman of the Committee on Culture and Education, emphasized the social and political dimension which the Council of Europe's educational and cultural activities ought to assume. After commenting on the various efforts of the Assembly to give renewed impetus to European co-operation in education and culture, he advocated that the CCC should be closely linked to the Conference of European Ministers of Education, though without prejudicing the autonomy of that conference. This co-operation must be channelled along convergent lines and intensified if more tangible results were to be achieved.

He furthermore insisted on the importance of the cultural development projects and stated that they should be given a larger, and at any rate more balanced, place in the programme of the CCC.

EQUIVALENCE OF DEGREES AND DIPLOMAS

At the request of the Committee for Higher Education and Research, the CCC approved and decided to forward to the Committee of Ministers the following recommendation on the improvement of the present system of equivalence information:

Recommendation No. 48

"The Council for Cultural Co-operation,

Considering the urgent need to improve the present system of information on equivalence of qualifications in Europe;

Having regard to the recommendation made to it by its Committee for Higher Education and Research after continuous study of the problems involved;

Strongly recommends the setting up of a competent centre or service in countries where national equivalence information centres or services do not yet exist.

The role of such information centres or services would be:

— to collect and provide up-to-date and reasonably detailed information on national institutions of upper secondary and higher education;
— to make the information so collected available to similar information centres in other countries which are signatories of the European Cultural Convention and to the Secretariat of the Council of Europe;
— to collect and provide at least a minimum of information on *foreign* education systems (including the objective assessment of foreign qualifications and existing equivalence arrangements) and in particular on those of the signatories of the European Cultural Convention."

SPECIAL PROJECT MOBILITY

Another important development was the CCC's approval of the budget for the Special Project on the Mobility of postgraduate students and teachers in higher education. This Special Project, which is due to start as from February 1974, will be entirely financed by voluntary contributions from thirteen participating governments. These are: Austria, Belgium, France, Federal Republic of Germany, Iceland, Italy, Netherlands, Norway, Spain, Sweden, Switzerland, Turkey and the United Kingdom. The project will, in principle, be continued for two years under the supervision of a special committee.

PROGRAMME PRIORITIES FOR 1975-76

After a detailed examination of the concrete proposals for 1975-76, the CCC thanked the Committee of Ministers for endorsing the main substance of its Opinion No. 10 and for "providing it with the means of ensuring the progressive implementation of its priority projects within the framework of the overall plan". This decision will enable the CCC to embark upon the first stage of its new development. In this connection it addressed a statement to the Committee of Ministers, calling attention to the next steps in its plan to assume the role of a focus for educational co-operation in Europe.

The CCC furthermore advised the Permanent Committees and the Secretariat that the successful conduct of a limited number of projects planned on a significant scale will be more beneficial to the future reputation and impact of the CCC than the maintenance of a host of small activities extending over a wide front.

Finally, in discussing its role in the field of cultural development and the relative imbalance between the cultural and educational activities, the CCC stated its readiness to comply with the wishes of the Committee of Ministers regarding the place of cultural development in its programme. It therefore decided to set on foot an intensified cultural development programme for 1975-76 and to convene for this purpose a Working Party composed of its own members. The Working Party which meets in February 1974, will take into consideration the work already done by the Committee for Out-of-School Education and Cultural Development and will discuss questions relating to the concentration and structuration of its programme.

Document: CCC (73) 26.

Vienna *7th-8th February 1974*

The European Convention on the Equivalence of Diplomas leading to Admission to Universities

(Working Party)

The Working Party was convened to reach agreement on the practical application of the European Convention on the Equivalence of Diplomas leading to Admission to Universities. When the Convention was signed in 1953, the upper-secondary school leaving certificate constituted a virtually essential qualification for admission to a university. In the meantime the situation has changed: governments and universities have become more flexible in admitting students not holding such a certificate, or — even more important — in many countries the enormous afflux of students has forced the authorities to restrict admission (numerus clausus). Difficulties have arisen in the application and interpretation of the Convention, as certain countries were unable to treat foreign applicants in the same way as their own nationals. It was, for instance, no longer possible to apply the Convention to the letter when 300 national and 300 foreign students were competing for 100 places available at a given university. Selection procedures were introduced and frequently, differing criteria were applied to foreign applicants and national students.

Should the present practice, for instance, in "numerus clausus", be recognised as contradictory to the Convention and the Convention therefore be revised? Or should an agreement be reached on admission procedure covered by a more flexible interpretation of the Convention?

At its autumn meeting the Committee for Higher Education and Research decided to set up a Working Party to examine the possibility of interpreting the Convention so that at least some of the present admission procedures in member States would still be covered by its text.

Following these decisions the Working Party met in Vienna. After having analysed the present situation, it agreed that the present shortage of places in many disciplines and the admission restrictions introduced in several countries have created an urgent need for co-ordination.

The meeting discussed a draft list of principles for the interpretation of the Convention. Agreement was reached on most of them.

The purpose of the Convention is to promote student mobility but not to solve problems arising out of national university policy and practice. Such problems can and should be solved on a bilateral basis. No country short of university places can therefore insist that neighbouring countries must admit all its students who fail to find a place at the university at home. Also foreign students should not expect to be given greater chances than they would have enjoyed in the country where their diploma was awarded, but in no case should foreign students be excluded completely. This would be against the spirit of the Convention.

The Convention gives holders of foreign school certificates a right to apply for admission to a university. This does not mean that the applicant must then be admitted. The only regulations which have to be taken into account should be those of the host country.

Holders of foreign secondary school certificates shall be treated, for purposes of admission to institutions of tertiary education, in the same way as holders of national certificates, subject, however, to certain specific, agreed exceptions where "discrimination" shall be permitted. If there are not enough places or training capacity available, it would seem to be justified to restrict temporarily the number of foreign students. A reasonable balance between the number of national and of foreign students must be respected — which would be in line with the Convention and would not upset the national planning policies.

In the case of restricted admission, the selection of foreign applicants must be based on objective criteria. Equal chances should be given to those who have equal qualifications.

National and/or university authorities would be justified in making sure that also foreign applicants meet the specific requirements of the study course they wish to take and know the language in which it is given.

Documents: CCC/ESR (73) 49; 91; (74) Misc. 3; 4.

General and Technical Education

Wiesbaden *12th-17th November 1973*

The early teaching of a modern language

(Symposium)

The teaching of languages to children of pre-school and primary school age is arousing increasing interest, not only among educationalists and modern language experts, but also in circles outside the school. The widespread dissatisfaction with traditional modern language teaching and the awareness of contemporary linguistic needs have resulted in new concepts in this field being sought and encouraged.

Does an early start lead to a higher level of foreign language competence in later years? Such teaching is essentially oral and is based on the belief that unfamiliar sound and speech patterns are more easily acquired at this early age. This argument is opposed by those who see no advantage in teaching young children to speak a foreign language when they cannot yet speak correctly their own. These controversial — and rather theoretical arguments set aside, the fact remains that language environment outside school is a decisive factor in the child's ability to learn a foreign language.

Papers dealing with the psychological and educational aspects as well as national reports from France, the Federal Republic of Germany, Sweden and the United Kingdom were presented to the Symposium, which brought together delegates and lecturers from all the CCC member States, as well as observers from UNESCO, the Institut Français of Graz and the British Council in Cologne.

Basing themselves on the reports and lectures, participants agreed that early modern language teaching could contribute to the general education of the young child and would enable him to develop an open mind to other ways of thought and other cultures. Experimental findings and observations do not justify the pessimism sometimes expressed about some allegedly harmful effects of the early introduction of a modern language.

The member countries differ widely in their assessment of the appropriate stage for an early introduction of modern languages. The specific needs of each country and the resources available have to be taken into account in deciding this issue.

There was also general agreement that the teaching of a modern language to young children will fail if continuity is not ensured throughout the whole age-group concerned and into the post-primary stage. Consequently, it was recommended that an early start to modern language learning should take place only when all the conditions exist which guarantee such continuity, namely: continuity throughout the whole period of early language learning; effective links at the earliest possible stage with the post-primary stage, and continuity at the post-primary level.

In the preparation of materials, full account should be taken of the pupils' mother tongue, of the way of life of the country or countries the language of which is being taught, of the fact that it will be used by non-specialist teachers, and of the need for continuity beyond the primary stage. All materials should be so conceived as to create the greatest possible motivation in young learners.

The teaching of a modern language to young children should, as far as possible, be undertaken in daily sessions of between 20 and 40 minutes according to the age of the children and the availability of qualified staff.

There should be a permanent exchange of information on the results of research and experiments in the teaching of modern languages to young children in the CCC countries. The Council of Europe should commission experts to undertake a critical review of ongoing experiments on early language teaching. Also, international exchanges at school level should be extended in order to increase motivation and to further mutual understanding among young Europeans.

Document: CCC/EGT (74) 10.

Brussels *18th-24th November 1973*

Participation in education and training for participation

(Symposium)

Because of its wide field of application, the definitions, objectives and conditions of participation in education are very complex. Where its structural features are concerned numerous opinions and solutions exist. In his paper given during the Symposium on *Participation in education — Sociological, psychological and pedagogical approaches*, Mr. M. A. de Peretti (France) remarked that: "Nowadays the concept of participation is being increasingly invoked, vaunted or criticised . . . The concept is gaining ground throughout the growing sectors of society from the political, industrial and social to the world of research and education . . . On a more general level, this extension of the scope of participation is linked to the trend to break down barriers between roles and organisations: these barriers and hierarchical differences are reduced under the impact of accelerating technological change, and as a result of society's constant need for more rapid communications . . . Leaving behind the contradictions resulting from the very spread of participation and especially its individual forms and institutional definitions we can now identify many ways in which it is understood. It may find expression on the basis of traditional teaching methods, become more intense with active methods or open up more radical prospects."

The starting point for the discussion was the present situation in different countries. Since conditions are very varied, it is difficult if not impossible to introduce participatory teaching in a uniform manner. The rules and the approach vary as a function of, among other things, history, traditions, sociological factors, and administrative and decision-making structures. The pressures and behaviour of the groups of people concerned in school life, i. e., the pupils, teachers and parents, are of prime importance where practical involvement, dialogue or joint action are concerned.

In fact, participation assumes that pupils are prepared for it. It requires the development of new structures and it takes definite shape in relation to the current development of teaching concepts. Other necessary general conditions are education for participation and training in it for all those concerned, the introduction of suitable machinery for it in every country, cautious planning and patience with early gropings and failures. The term participation applies to the definition of the principles of day-to-day management rather than to management itself.

The delegates discussed the positions of the four groups involved: the staff of educational establishments, parents, pupils and other categories or groups concerned with school life.

The staff is made up mainly of teachers, but also includes administrators, medical and welfare staff and domestic and maintenance staff. For the teaching staff, being faithful to the spirit of participation means two things: inter-disciplinary co-operation and team teaching. But moves in this direction are impeded by external constraints, a heavy work load and

the absence of specific training for participation. A palliative would be to give teachers greater autonomy in joint decision-making and a larger part in drawing up courses and to intensify their training in the new methods.

All the non-teaching staff, particularly maintenance staff, should have the opporunity to express their opinions at staff meetings.

Parents clearly have an important specific role, but a number of factors can prevent them from participating. If they are to involve themselves in school management, they must first of all be given sufficient information and preparation. Contacts and communications between the interested parties and the mass media, particularly television, are the most important means.

But above all the pupils must be trained for participation as early as possible, and here the problems of representation and representativity are of a special nature.

Training pupils for participation begins as part of the teaching process. The class has to teach the pupil to express himself, develop his curiosity and his reasoning abilities. Active methods, independent work, the example of team-work set by the teachers, are all exercises which train pupils for participation. To a certain extent, pupils should be able to choose their own lessons and subjects, probably from the age of 14. But pupils deputed to take part in co-management will require additional training which has still to be defined and has scarcely been initiated. Emphasis was laid at the Symposium on two aspects of participation which concern all those taking part in school life, but more especially the pupils: on the one hand informal, non-institutionalised participation, enabling ad hoc groups to meet to discuss the life of the school and to contribute to its enlivenment; on the other hand important meetings of — in many cases — institutional bodies, whether with power to take decisions or merely to advise, to which the informal groups can present proposals. The relationship between the two types of participation — formal and informal — must be organised by the school and the authorities responsible. Institutionalised participation which is not backed up by informal participation could easily lead to authoritarian practices.

Finally, with regard to the building of schools and wherever it is desired to introduce a system of co-responsibility, the appropriate means should be given to all the groups of the educational community and not simply to the pupils.

Documents: DECS/EGT (73) 48; 58; 59; (74) 16.

Strasbourg *11th-12th December 1973*

The compensatory role of pre-school education

(Meeting of experts)

A certain number of children below the age of seven years show evidence of being handicapped when compared to children who are considered normal. The question is to know how pre-school education can help them to overcome their handicap either partially or completely. The difficulty of achieving full democratisation of secondary education, as revealed by experiments carried out in the United States in particular, fully justifies a change in teaching methods, the urgent need for which is generally recognised. So long as children enter primary school under a handicap resulting from their social background or economic circumstances they will be denied any real equality of opportunity.

How should this problem be tackled? It was of course observed long ago that "pre-school education played an important part in diagnosing individual handicaps of a physiological nature, which needed special educational treatment, and in providing such remedial treatment. What is new is the concept that whole groups of children from specific social classes, above all the urban and rural poor, are in need of compensatory education in nur-

sery schools if, in the balance of education between home and school during a child's early life, they are not to be crucially handicapped in their progress through the educational system". These comments by A. D. C. Peterson and W. D. Halls in their study *"The Education of Young People in Europe — Developments, problems and trends"* (Council of Europe, Strasbourg, 1973, 126 p.) clearly demonstrate that this question has, over many years, given rise to problems which have still not been solved. In this connection, A. D. C. Peterson and W. D. Halls make the following comments:

"This handicap was at first conceived as something which might be set right by a compensatory programme of pre-school education, which would bring these children to the starting point of formal primary school in a position of equality with their more fortunate compatriots. The initial 'Headstart' programmes in the USA therefore laid great emphasis on the compensatory value of developing linguistic and mathematical skills which were important for success in the primary school. An early evaluation (1968) of the most effective elements in such programmes stressed the importance of a warm, supportive and stimulating teacher; a task-oriented programme approach; an academically oriented programme format and an emphasis on verbal development. Much subsequent research, in the Federal Republic of Germany for instance, has stressed the importance of this intellectual approach.

"Since European experience has tended to show that where pre-school education is left to provision by voluntary bodies and financed to any serious extent through fee-paying, those children who most need it are least likely to get it, the commitment to compensatory education leads inevitably to generalisation of the nursery school as part of the normal state provision. Moreover, the rapid expansion of nursery schools under the stimulus of this commitment is tending to direct attention to the extent to which all children, and not just the 'culturally deprived', can benefit from a nursery school experience in which the natural play interests of the child are more guided towards the development of linguistic skills or mathematical concepts which will be of use to him at later stages.

"Although the initial impetus to the rapid expansion of nursery schools, rather than of kindergartens, may have been given by the realisation of the need for compensatory education in areas related to primary school performance, there is already a growing tendency to see this as too limited an objective and therefore ineffective. One element in this realisation is due to the increasing evidence that the effects of compensatory pre-school education on academic performance in the primary school are transitory and soon obliterated. Another, more fundamental, but perhaps only now beginning to become apparent, is the criticism that the early pioneers of compensatory education judged its value too much by the sole criterion of whether it helped to redress inequalities of potential for academic success in the primary school. But what if the criteria of academic success in the primary school were themselves in need of revision? It could be that the child from a 'culturally deprived' background was disadvantaged, not in terms of developing his real intelligence and his moral and aesthetic capacity, but only in terms of success in the particular academic exercises demanded by the traditional primary school."

These general ideas, and, in particular, the examination of different types of handicap, were at the centre of the discussions at this meeting of eight experts. It was noted that these handicaps are due either to a congenital or acquired defect in perception or motor control or to some mental deficiency or else to an inadequate economic and/or human environment. The role of pre-school establishments is of paramount importance, and it is essential to detect any handicap as early as possible, to determine its origin and to ascertain its effect on the child's development. In order to help teachers to bring out a handicapped child's full potential, his degree of educability should be established, stress being placed on his positive rather than his negative characteristics. This would also make it possible to determine what type of pre-school establishment (ordinary, specialised etc.) he should attend and to asses his mental age. Two other points are also to be considered: the devising of flexible curricula, capable of adaptation to individual cases (development of physical ability, sensitivity, etc.), and the provision of specialist training for pre-school teachers. Furthermore, it is very important to provide information to the families of handicapped children and to establish close co-operation with them in their children's education. This would considerably improve the situation.

The experts worked out the contents of four case studies and of a consolidated study on the compensatory role of pre-school education to be conducted by the Committee. The studies would approach the problem from the psychological, biological, social and educational angles with particular reference to ways of overcoming children's development difficulties and preventing failure at school.

They would cover the following fields:

— Children with congenital or acquired defects in perception or motor control (sight, hearing, psycho-motor system, after-effects of poliomylitis or accident injuries, retarded motor development);
— Mentally or psychologically deficient children;
— Children from socio-culturally or economically deprived families;
— Children from families with personal difficulties (divorced parents, broken homes, orphans, unmarried mothers, etc.).

The experts recommended that the Committee for General and Technical Education should consider the possibility of:

- developing the co-production of materials for special education;
- establishing a "European Centre for Special Education" to function as a clearing house for information in this field;
- studying the integration of the various services (social, medical, educational, etc.) dealing with young children;
- holding a symposium to be attended by representatives of the various categories of staff at training centres for pre-school education;
- investigating the problem of exceptionally gifted children;
- studying the difficulties arising in connection with population movements within a country.

Document: CCC/EGT (74) 3.

Strasbourg *18th-19th December 1973*

The introduction of new mathematics into the primary school curriculum

(Meeting of experts)

The meeting's aim was to compare the results of the recent introduction of new mathematics into the primary school curriculum at national level, and to define the contents of a study on the same subject to be published in 1974.

Nine national reports were presented to the meeting, each dealing with the major problems and approaches in the teaching methods adopted in the countries represented at the meeting.

Practically everywhere the main obstacle seems to be the inadequate preparation of teachers, both serving and those in training, for the teaching of new mathematics. Totally satisfactory results cannot be obtained as long as this problem is not solved. In certain countries, the teaching of new mathematics has been made compulsory in all primary classes, and teachers in service have had too short a time to familiarise themselves with the new methods of teaching and curriculum content. In others, the introduction has been gradual giving the teacher the liberty to introduce the subject after having been sufficiently informed.

The major innovation is not only in curriculum content, but, in particular, in the new approach in which the subject is taught. Programmes are more child-centred and their aim is to make the child, through practical experience and play, understand abstract notions.

There are some advantages in introducing the new mathematics in primary schools. Children start to grasp basic mathematical structures at an early age. Their interest in mathematics is aroused by encouraging their active participation in the learning process: introduction of sets and set-language, discovery of space, use of different units in calculation. Also, it can be regarded as a preparatory and transitional phase helping to lay foundations for postprimary mathematics.

This does not exclude disadvantages experienced with too rigid programmes: while the gifted pupils learn much more rapidly, the weaker ones, on the contrary, learn even more slowly than with traditional methods.

In discussing the aim of new mathematics teaching and the results to be achieved at the end of primary education (11-12 age group), the participants agreed that pupils must have an easy and accurate command of mental and written arithmetic in the decimal system. Assimilation will be particularly effective if pupils do not learn these operations in a passive way as imposed on them but discover them independently as the synthesis of countless practical experiments of varying kinds.

Participants recommended that six-year-old children in their first year at primary school should be initiated into the notation systems based on different units. To begin with, the unit should be no more than 10. Operations involving units other than 10 should be carried out with the use of teaching aids. Once the concepts and machinery of these operations have been mastered, calculation should be limited to the decimal system.

The case-studies to be prepared in the course of 1974 should cover the major problem areas common to all countries, namely, teacher training, both initial and re-training, for instruction in new mathematics, and methodology. In addition, a paper, based on the nine country reports should analyse the divergencies in the systems and methods. These publications would be of great use to all governments in planning the introduction of new mathematics into primary schools.

Finally, the participants requested that member countries which had not participated in the meeting should be informed of the activities in this field and should be invited to submit similar reports on the national situation.

Documents: DECS/EGT (74) 2; 3; 11; 12.

Strasbourg *8th-11th January 1974*

The Oxford/Council of Europe Study for the evaluation of curriculum and examinations

(Meeting of experts)

The Oxford/Council of Europe Study for the Evaluation of Curriculum and Examinations (OCESCE Study) is devoted to the upper secondary field of general education. The purpose of this major curriculum project is to obtain as complete a picture as possible of the aims and objectives of the syllabi, examinations, and teaching methods used in the most specialised classes in the CCC member States.

Between 1965 and 1971, the teaching of the following disciplines was examined: Latin, mathematics, biology, chemistry, physics, economics, the mother tongue, history, geography, and social and civic education. The findings of this survey of the ten disciplines are being published by the Council of Europe in the "European Curriculum Studies" series. So far, eight volumes have appeared.

A general assessment of the Study was made at this meeting last January. It brought together authors of the "Curriculum Studies", representatives of the subject meetings, and members of the Committee for General and Technical Education. The experts also discussed the impact in educational circles of the publications in the "European Curriculum Studies" series and made proposals for the content of the final phase of the project: a study on the theory and practice of the curriculum at upper secondary level in member States. This study will be published in 1975.

The meeting examined various aspects of the OCESCE Project in three fields of study: science (physics, chemistry, biology, and mathematics); human sciences (history, geography, economics, and social and civic education); languages (the mother tongue, Latin, and modern languages).

A summary of the conclusions of the three working groups is given below.

The sciences

There was general agreement that all pupils should study science and mathematics to the end of the upper secondary stage. These subjects make a very valuable contribution to general education, e. g. practice in inductive thinking, development of numeracy and of a special approach to abstract thought, understanding of the nature of probability, and the development of an analytical attitude. Content and method should be equally balanced for the scientist group of students in upper secondary education. As for the non-scientists, method was thought to be more important than content, and an integrated approach to the teaching of science was regarded as most suitable for them. In this context, it was emphasised that no single teachers could deal with such a course, and some form of team teaching would be needed.

There was general agreement that it was not necessary to introduce such new subjects as computer science or technology into the upper secondary curriculum. The principles involved could be introduced within the framework of the traditional science subjects.

The human sciences

After defining several principles of syllabus construction, the group discussed in detail the need to combine a sound training in the concepts, skills and knowledge of the established disciplines with the desire to deal with the real problems which often involved a cross-disciplinary approach. In attempting to make a programme entirely based on multi-disciplinary studies, it was difficult to agree on a programme consisting solely of topics or projects. Yet the group felt that it was possible to reconcile, within the time available for the teaching of the human sciences, topics such as urbanisation and industrialisation, modern political forms and ideas, contemporary problems of world society, migrations and minority groups, clash of cultures, and the impact of automation, with such questions of immediate concern to young people as sex education, drugs, fashion, mass media, and the identity of the individual in society.

There was furthermore general acceptance of the statements made at the Karlskrona Symposium, May 1972, concerning the contributions which the various subjects could make to a human studies programme. A number of modifications were suggested, including the addition of elementary notions of law, sex education, and areas of belief. However, it was felt that the initial training of most teachers has not equipped them to deal with the multi-disciplinary programmes which are being developed.

The group recommended that the Council of Europe should develop models of experimental syllabuses involving problems and topics of general European interest.

The languages

After defining the objectives of the teaching of the mother tongue and of classical and modern languages, the group stated that language courses should deal with the nature and structure of language, as well as literature. Pupils should be able to understand and ana-

lyse the various levels of language, and to express themselves clearly both orally and in writing. The group also made detailed proposals about the content of the teaching of the mother tongue and classical and modern languages.

The group agreed that pupils should be introduced to major literary works of the language under study. However, the choice of such works should not be limited to the literature of a single nation but of all the peoples using the language in question. For example, the study of English literature should cover writers in English from Scotland, Ireland, North America, Australia, etc., while that of French literature should cover writers from Quebec and French-speaking Africa.

At one final plenary session, the participants recommended that the CCC should continue to deal with the problems raised by curriculum development for the 16-19 age group on the basis of the proposals prepared by the three working groups. It should also examine the possiblitiy of establishing machinery for the regular exchange of information on curriculum development for the 16-19 age group and consider, in particular, the preparation of a European inventory of national curriculum projects.

Documents: CCC/EGT (74) 4.

Out-of-School Education

Strasbourg *17th-18th December 1973*

The functional and cultural relevance of adult education

(Meeting of experts)

The aim of the meeting was to make a contribution towards a more comprehensive approach to the organisation of continuing adult education in Europe: to prepare a general plan for the gradual establishment of continuing adult education integrated into a system of permanent education. To this effect, participants discussed details of the intensified project "Organisation, contents and methods of adult education" and, in particular, of the preparation of the interdisciplinary Colloquy to be held in autumn 1974. The Colloquy, as a wider discussion platform for experts and decision-makers, will examine proposals for a common policy of continuing adult education within the framework of permanent education — the organisational models, the development patterns, the elements of a strategy to implement progressively such a policy.

The central themes were developed in three papers: "Strategies for the structural organisation of adult education within a permanent education framework" by Professor W. Clement,

Institut für Wirtschafts- und Gesellschaftspolitik, Innsbruck; "Continuing education for adults in the context of permanent education" by P. Dominice, Ecole de Psychologie et des Sciences de l'Education, Geneva; "Continuing education for adults" by J. J. Scheffknecht, Agence Nationale pour le Développement de l'Education Permanente (ADEP), Paris.

The papers presented to the meeting lay stress on some of the latest developments in this field. They attempt to shift the emphasis from preliminary and fundamental studies carried out between 1971 and 1974 to a more policy-guided action suitable to prepare, facilitate and orient decision-making processes at the national level.

In his paper, Mr. Scheffknecht states that "the concept of adult education as a separate entity is relegated to the past. Nowadays everyone acknowledges that adult education will be an integral part of a future permanent education system. The practical implications are however misunderstood if it is imagined that adult education will remain unchanged as a subsection 'within' permanent education. Those in charge of adult education can no longer

regard the problem in terms of the concepts they initially used: a mental readjustment is needed, since they must now deal with the *whole* of the educational system at the same time, and this involves a transformation of the concepts . . . Adult education has already entered a transitional phase; continuing education for adults represents the beginning of a quest for permanence in this field".

He advocates that attention should now be given "to the organisation or 'disorganisation' of education" bringing along changes at work, in social life and in the financial structures of education.

As for the organisation of continuing adult education, Mr. Scheffknecht makes the following proposals: "A regional body should at any given time be able to set in motion an analysis of needs or be consulted by the communal bodies — or by the public authorities — when educational problems arise. The regional body should enjoy maximum independence in organising or arranging suitable educational solutions."

After having stressed that education should become a corporate function and be regarded as an inseparable part of community development, the expenses being provided by the community itself, Mr. Scheffknecht outlines the main elements of the transitional phase in the establishment of continuing adult education as follows:

— "large-scale experimental schemes to test the new policy,

— a new system of financing for short-term educational pilot projects,

— a national development body concentrating its efforts on analysing the needs, developing public awareness and promoting research into the various aspects of continuing adult education."

Mr. Dominice's approach is illustrated by the following quotations: "The challenge to permanent education is to trigger off a process which will progressively transform the entire educational system. By chanelling education towards personal development, creativity and co-operation, the traditional school system will gradually have to modify its vain claims to imparting basic knowledge. Instead of focussing education on childhood and adolescence, it will be possible to deschool these periods of life, enhancing the educational importance of non-school situations and allowing for education to be phased in a far more flexible manner over subsequent stages. Here too it is clear that a new rationale must be found for education on the twofold basis of experimentation and planning on the one hand and scientific research and co-operation in decision-making on the other . . . Influenced as it is by the splitting up of daily life into sectors of activity and interest unrelated to each other, adult education obviously cannot bring about the harmonious personal development desired. Growing urbanisation makes the problem particularly acute . . . Some educational sectors and activities, by refusing to face the problem directly, are actually exploiting this compartmentalised approach to life and unfortunately adult education may, as it expands, merely have the effect of accentuating the alienations of modern society, thus countering the ideals of permanent education. For this reason, continuing adult education can only be truly effective if all sectors of life become sources of education . . .

"The ideal of a life dependent on factors other than the status or financial satisfactions of a particular occupation is a huge educational venture and calls for an overhaul of scholastic aims in the minds of all concerned (pupils, teachers, parents, the business world, etc.). Efforts to encourage education enabling everyone to follow the course most in keeping with his interest, to think of his working life as a means of self-expression or participating in community life, to resist the flood of consumer goods and information unleashed on him and participate in decision-making of all kinds with full awareness of the alternatives available, provide the fabric for an educational project which it is far from easy to instigate. Obviously there is a wide gap between objectives and possibilities. Nonetheless, the model proposed by permanent education acts as a *critical instrument for current strategies.*"

In his turn, Professor Clement stresses the research and planning aspects of the problems under discussion. "Analyses for the creation of systems of permanent education must extend far beyond the traditional field of educational science. Fundamentally, it is a question

of integrating education with the rest of the social, technical and economic environment. This integration or interdependence with 'extra-educational' systems needs to anticipate their future development or at least keep pace with it. Theoretical and empirical research has the immense task of trying to meet this need . . .

"Hitherto, research into the labour market and occupations has by means of a heavy research machinery sought to deduce from the technical and economic systems what qualifications are relevant. Various concepts such as traditional occupational classifications, job clusters, key qualifications etc. were examined. At best, however, these concepts can only explain existing systems and the way in which they work. The only forecasts which can be made with their help are status quo forecasts. A more important task, however, would presumably be to devise alternative economic systems. In this case it must be examined how far the previously elucidated relationships are valid for such alternative systems . . .

"Recent planning processes can be given such labels as: participatory, individualised and continuing. The application of the results of theoretical research into this type of planning and of practical experience means that something like an interlinked system of information relevant for planning purposes would need to be available for permanent education. This system of information which, in model form, would have to supply diagnoses, alternative forecasts and also policy simulations, could perform various functions. It would help the policy-makers to define their aims and to clarify the measures they adopt. But as it would also have to be placed at the public's disposal, it would help to form public opinion more fully and more rationally. Lastly, it could be used as a decision-making mechanism (with the possibility of feedback) for proposals concerning measures in the field of permanent education."

In the ensuing debate, the participants tried to identify the most relevant topics for the Colloquy. It was generally agreed that the possibility for the individual and the community to take an active part in decisions concerning provisions of education is the most important factor for the organisation of adult education as an integral part of permanent education. There is a growing tendency evident in many fields of education to introduce self-directed learning and participatory structures as a trend towards self-management. It was therefore proposed to choose the following theme for the Colloquy: "The integration of adult education within a framework of permanent education: trends towards the self-management of education."

Emphasis was laid on the necessity for thorough advance preparation of the Colloquy. To this end it was agreed to undertake studies on experiments of self-management at different levels. The following experiments were chosen: The experiment of the Roskilde University Centre, Denmark; Metal Workers Union project, Norway; the Community development projects sponsored by the Home Office, United Kingdom; and the experimental activities in participation of the Volkshochschul-Verband, Federal Republic of Germany. In addition, another paper will be prepared dealing with the concept of self-management, the preconditions (motivational factors etc.) and the consequences (contents, methods, organisation, resources).

Documents: CCC/EES (73) 31; 32; 35; (74) 1.

Paris *7th-9th November 1973*

The Second Colloquium of Directors of Educational Research Organisations

How does the educational researcher act and communicate with the teacher and with the educational policy-maker? In other words, what is the use of educational research? These were the questions put to the Second Colloquium of Directors of Educational Research Organisations in Paris on the 7th-9th November 1973.

These colloquies are intended to bring together, at two-year intervals, the directors of the principal research institutes of the CCC member countries for an intensive discussion of current topics of overriding importance for educational research. The first Colloquium, held in London in 1971, was primarily an opportunity for European researchers to take stock of their existence as a European body and to discover the similarity of the situations and problems facing them, transcending differences of language and political situation. The second sought by a discussion of more specific problems to continue and build on the progress made. It was attended by more than fifty researchers and research directors from seventeen countries, and by observers from UNESCO, OECD, and the European Cultural Foundation. Mr. L. Legrand, the outgoing Chairman of the Educational Research Committee, chaired the Colloquium.

- THE RESEARCHER AS AN AGENT OF INNOVATION IN THE CLASSROOM
- THE RESEARCHER AS AN ADVISOR TO THE POLICY-MAKER

Behind the two 'themes' selected lurked, as suggested above, the question: "what — if any — is the use of educatioal research?" None of the speakers failed to make this perfectly clear. In fact, two of them went so far as to ask, "what is the use of research in the crisis situation we are facing today?" Perhaps there was another concealed question: "What is the use of talking about it in this remote international setting?" Interestingly enough, two of the speakers gave thoughtful and informative accounts of the relative failure, in their countries, of research to look outside itself, while not themselves succeeding in looking outside their own national circumstances. It was left to an American, J. Bruner, and the Chairman, L. Legrand, to spell out the problems which are implicit not in any given national situation, but in the very concept of educational research. This, and the much more intimate and intensive exchange of views in the working groups, established the need and gave the opportunity for participants to step back and look at this much-discussed problem in a new perspective.

L. Géminard, at present permanent representative of the General Inspectorate at the French Ministry of Education, and formerly head of the INRDP, opened the meeting. He reminded participants that education, in its social context, can be said to have, like any explosive, both a stable and a critical state. Where social consensus exists or can be successfully imposed, the objectives of education are not contested. Research in this situation seeks ways of improving educational processes within the system, and tends to be shaped by the methodological constraints inherent in trying to extend specialised knowledge and to discover laws and constants of human behaviour. However in the opposite situation, of transition or radical change, agreed values go by the board and society disintegrates into rival forces blown before the winds of economic imperatives, openly asserted and frequently contradictory. What, in this situation, is the task of educational research?

Géminard's answer was that the political and social authorities must enforce the conditions of the social contract, among them the agreed objectives in education. But these objectives (finalités) can be attained only through a number of intermediate or working objectives (objectifs opérationnels), as yet left undefined. It is the principal task of research to define

these, on the three levels of structures, processes (curricula, methods) and the skills and attitudes of teachers. Research thus affects the choice of innovations, their application, and the evaluation of their results. We may briefly describe this function of research as consummating a marriage between the objectives and the mechanics of education.

Non-classical conditions

The fascinating thing about J. Bruner's contribution, which followed, was that in one respect it was the same as Géminard's, and in another way its opposite. Professor Bruner, now Watts Professor of Psychology at Oxford University, took as his theme precisely this relationship between the researcher and the political and social authorities, in other words the policy-maker. But whereas Géminard had proposed that our situation might be one of change, Bruner positively proclaimed, through the words of Robert Oppenheimer: "One thing that is new is the prevalence of newness, the changing scale and scope of change itself, so that the years of a man's life measure not some small growth or rearrangement or moderation of what he learned in childhood, but a great upheaval." Borrowing again, this time from Keynesian economics, the notion of a body of theory derived from known situations, from "classical conditions", he asked rhetorically if this sort of knowledge, the sort gained or sought by almost all current educational research, would ever be of any use. "I believe the field of education to be in a state of crisis, crisis in the deepest sense, reflecting changes much as those expressed in the dark words of Robert Oppenheimer ... Under these patently non-classical conditions, it is quite plain that educational innovation will not and cannot come from the efforts of the educational researcher operating solely within the constraints of classically-defined objectives."

Destabilising factors

Bruner summarised four changes, or destabilising factors in education which had rendered reforms — as hitherto conceived — likely to fail. For example, requirements for the future labour force had been altered by the technological revolution, with its major emphasis on control and information in a highly automated product network. In the new capital intensive economies wealth is produced in a new way without a corresponding redefinition of human work. The result was a bimodal work force, with increasing technical skill for a few at one end, and dull, unskilled work, often carried out by acquiescent "guest workers", at the other. The industrial society thus came to be seen, not as freeing men's energies for new enterprises, but as a source of degradation. "We cannot expect the young to go about the process of education with anything less than rebelliousness and dissatisfaction if they cannot have a fuller sense of what it is they are preparing for." Other and no less profound changes had taken place in attitudes to social class and its perpetuation, by the schools among others; in attitudes to IQ differences, whether hereditary or environmental; and finally in our conception of education as a recipient of social resources. The concept of permanent education ends the probably false distinction between education and social and economic policy; and through this concept education becomes the chief *distributing agent* of social economic resources.

Task forces to formulate alternative plans

Bruner was perhaps at one with Géminard in stating that these questions "are beyond the competence of conventional educational research, whose principal task is to evaluate practices as they exist". But he differed from the latter in urging the educational researcher to abandon his position as neutral advisor or 'expert' in a narrow, Saint-Simonian sense, and to become an "actor on the historical stage", forming 'task forces' with psychologists, economists, sociologists and politicians, seeking to formulate alternative plans for dealing with the deeper problems. Moreover — and it is perhaps here that Bruner differed most from Géminard — those task forces would fail if they acted as eminences grises communicating directly with "le pouvoir". He thought that they could only acquire the power, the leverage really to innovate, by going before the public and stirring up a debate about the real alternatives before us. It would be only *after* such a debate that we could move towards the compromises and the reformulation that would be required.

Counselling on policy — independence and legitimacy

Professor H. Becker, director of the Max-Planck Institute for Educational Research in Berlin, agreed with Professor Bruner in thinking that the accelerating change in modern society has thrust education policy to the forefront of innovation strategies: in other words that the former system of a direct link between research and practice, with its characteristics of small-scale changes in curricula and teaching methods, could no longer be relied on to produce the tremendous changes required to meet the modern situation. However he took Bruner's analysis of the relationship between research and politics a little further, with special reference to the Federal Republic of Germany.

Briefly, he pointed out that the authority of 'expert' opinion is such that legislators have become afraid of the experts' power to influence politics, particularly since our democratic institutions were not framed to meet the challenge of the Meritocrats. In a world where the importance of scientific expertise in policy-making has become paramount, it is increasingly evident that expert consultative bodies are in fact taking what amount to political decisions without the legimitation that a democratic system required. They do this by framing (although not deliberately) their research and their arguments, and indeed by phrasing the question, in such a way as to favour one political hypothesis and exclude others. Both the main German planning bodies in the field of education and research, the *Wissenschaftsrat* (Science Council) and the *Bildungsrat* (Education Council) operate with two chambers — one of experts, the other of policy-makers and administrators — and in these two bodies the dilemma of the legislation is clearly apparent. In the *Wissenschaftsrat* both chambers vote together, and their decisions, tending to conform with government policy, are usually quickly implemented. In the *Bildungsrat* the experts vote alone, armed with the advice of the policy-makers. As a result their recommendations have greater intellectual unity and are more radical, but are generally modified to a much greater degree before being applied. The problem is this: counselling on policy is clearly of use only if it is genuinely independent, but if it is so it may well be uncomfortable or inconvenient. However expert advice must be closely linked to political possibilities, unless society is to divide into two classes, one of social engineers and one of the engineered.

Contention and consensus

But a further problem arises when experts of equal standing fail to agree, because departing from different premises. For example, the new and looser framework curricula in West Germany have provoked bitter controversy amongst German academics. Scores of Professors have come out pro and contra. Thus it is one of the functions of consultative bodies to allow contentions between experts to be welded into consensus — a consensus which can then, of course, no longer be directly attributed to scientific method.

Becker thus highlighted some of the difficult realities in the relation between research and politics which would militate against Bruner's task force: divisions and controversy between experts; the incomprehension and bewilderment of the public before the complex arguments of such a controversy; and the desire of governmental authorities to keep the considerable power of scientific expertise under their control. There is an increasing dichotomisation into independent research on the one hand and research by government agencies on the other. Research has legitimate responsibilities towards Policy, and Policy equally legitimate ones towards Research, and Becker took care to enumerate and explain them. But these responsibilities act as constraints on research which tend to eliminate the extremely original.

The communication gap between the researcher and the teacher

A rather different debate took place on the question of the usefulness of research for innovation in the classroom. T. Becher, Deputy Director of the Nuffield Foundation, took as his hypothesis the 'fact' that very little of educational research that is done turns out to have any noticeable impact on the ordinary teacher and his work. Faced with this fact researchers had seized on the idea of 'relevance' and launched major research-based development schemes. These schemes — e. g. IMU Mathematics in Sweden or the Individually

Programmed Instruction Project in the USA — had met with great difficulties. The conclusion he drew was that the "communication gap" between researcher and teacher is spurious, in the sense that it cannot be bridged owing to the very conception of educational research currently in vogue. Dissemination programmes, action research, efforts to overcome teachers' "resistance to innovation" must thus be seen as wasted effort, so long as they are directed towards — and therefore in a sense against — the teacher. The fault lies with the researcher, and particularly "the specialists in learning theory, aptitude testing, curriculum evaluation, interaction analysis and the like, who form the main body of the educational research profession today".

The focus on the periphery

Becher's argument holds that these researchers seek to find general, immutable scientific laws in a human process so varied and complex as to preclude their existence. Moreover they seek to apply their results from the centre to the periphery, and acting on the logistic structures and the framework of the system rather than on the communication that takes place between teacher and learner. It is assumed that the actual processes of teaching and learning will automatically respond to changes in the framework. This method, Becher said, can hardly have any other result than the distortion or dissolution at the periphery of the reforming impulses emanating from the centre. The conclusion drawn is that educational structures are to some extent superficial, if not superfluous: actual transactions between teacher and students are more important, because more basic and fundamental. "This is only another way of saying that the initial focus should be at the periphery, rather than at the centre, of the system . . . The problems on which educational research and development should engage should be those which are defined by a close study of educational practice." This, in turn, is only another way of saying that the researcher must become simply the partner of the teacher, working on solutions to the problems the teacher puts before him.

Freeing the teacher

To this S. Marklund, Research Director at the National Board of Education in Stockholm, replied by conceding certain points. Certainly it is inappropriate research which does most to excite its reputation of futility, not only with teachers but with policy-makers also. Certainly the teacher is the best judge, in fact the only judge of the problems which affect the teaching process. Certainly this process is basic and fundamental, in fact the very essence of education. And certainly the key to the question is finding appropriate objectives for educational research. But, to find out what research is for, we have to ask first what education is for, and what teachers are for.

For Marklund, the objectives of education in Western Europe can be generally indicated by the four headings: individual development; socialisation; equality; and the transmission of a cultural heritage. If these are the objectives of education, the task of the teacher is simply to achieve them. Unfortunately the teacher is prevented from doing this by a number of factors. Indeed, there would be no need for any "educational policy" or its makers, if it were not necessary to identify and overcome these factors. Now the teacher, in his everyday work, meets with a number of problems: in the main individual ones, because they affect, and often arise from, the teacher and his pupils as individuals. Marklund argued that the teacher can safely be left to handle these problems, insofar as they affect teaching and learning, on his own. It is the supreme duty and the satisfaction of a teacher to overcome the obstacles to education experienced by the individual. But the teacher's ability and freedom to experiment and innovate are limited in two ways: first by his intuitive understanding of the psychological and social forces which affect learning, secondly by the "frames" — the school, class, lesson, subject, book — which determine what happens in a school, in the sense of delimiting the possibilities of study and interaction to one kind. It is on these general factors affecting education that the researcher must act: not to help the individual teacher, but to help all teachers. The researcher can in fact do nothing to help the individual teacher because the latter is infinitely better qualified by training and experience to deal with the muddled multiplicity of general and individual problems which

he meets every day in the classroom. The researcher's job is to distinguish the particular from the general, and to free the teacher from the constraints on his creative endeavour that are the behavioural obstacles to education inherent both in school systems and in pupils themselves.

Surveying the common ground

It was left to L. Legrand as chairman to try to pull together these brilliant but rather mutually challenging contributions, and to survey the common ground.

First he pointed out that it was no accident that Marklund, a representative of centralised Sweden, stressed the advantages of a centre-periphery process for structural innovation, while Becher, representing a thoroughly decentralised country like the United Kingdom, gave emphasis to a process where innovation (usually in contents and methods) proceeds from the periphery to the centre, then back to the periphery: a process to which Legrand gave the name "controlled innovation". But he immediately stressed that whatever the aim or process of innovation, the basic questions remained: how to rise above subjective empiricism? How to innovate sufficiently rationally and effectively to solve problems? How to disseminate innovation and how to assess its results? These questions can, in both centralised and decentralised systems, be concentrated into two:

— how to involve the teacher

— how to generalise changes.

In a centralised system, the more difficult problem is the former. In a decentralised system the urgent question is how to develop and spread change through autonomous local units, sometimes lacking the resources for change.

From the experience of various countries Legrand drew three conclusions:

— changes in the framework of education and in the conditions of teaching are needed to make innovation possible, but they cannot bring about innovation by themselves;

— involving teachers in development work is essential in order to avoid the now well-known traps: among them the fact that experimental situations created artificially cannot be applied to real life;

— research and development carried out in a real situation gives the researcher invaluable information about the conditions in which change can 'take'. Moreover development centres 'on the periphery' can themselves become 'carriers' of change.

Thence Legrand deduced that "action-research, carried out on the local level by teachers and researchers in close partnership, thus appears to be the most effective way of propagating change, watching its development, and creating the sources of its future generalisation. For this 'controlled innovation', Centres for initial and in-service training seem eminently suitable."

Secondly, it is important that central research organisations should enjoy complete autonomy in their work, while maintaining the closest possible contacts with the central authority, with local dissemination centres and above all with teachers. The Schools Council for England and Wales seemed to him a model, particularly where such a centre could be associated with the centres for initial and in-service training, or possibly with regional centres, as proposed by Becker, combining training with action research. He also stressed the usefulness of an international centre to encourage and co-ordinate research and development work of wider interest, a centre whose creation he deemed perfectly feasible.

On the even more delicate question of the connections between research and politics, Legrand reaffirmed the essential demarcation: politics is concerned with choosing the objectives of education and allocating the necessary resources. Research confines itself to knowledge, whether theoretical knowledge or knowledge acquired through action. Evidently theoretical knowledge includes the study of alternative systems. Hence there could be no confusion or ambiguity about the distinction, were it not for the fact that research cannot

take place unless it is financed. And the finance of research is a political decision, given or not given on the basis of the usefulness of that research to the policy-maker. To take such a decision, the policy-maker must first know that a particular project can be carried out, and must then know what useful knowledge it can be expected to produce. But researchers sometimes speak a remote language, not easily decipherable to non-specialists; and furthermore, the need for scientific knowledge may run counter to an urgent need for political decisions and action. This places stress on the institutional relationship.

The conclusion is that, given, on the one hand, the risk of distortion in research arising from too close a connection with policy, and on the other hand, the risk of an evident contradiction between the results of research and the conclusions anticipated by the policy-makers, research must always be free: in its methods, its conclusions, and its publications. Moreover the researcher must be able also to intervene at the actual decision-making level, since he alone is in a position to challenge the attitudes and stereotypes, the mental habits inherited from the past, which cause the educational system to lag behind general social developments. Fundamental research, like systems research, must be allowed to produce deviant models and test them in a real situation. This means a system which tolerates and in fact encourages variety even where short-term decisions are involved. Research must be free: even, in a sense, to bite the hand that feeds it.

Documents: DECS/Rech (73) 77; 78; 79; 80; 81; 82; 83; 84.

Modern Languages

Strasbourg *3rd-4th December 1973*

Modern languages: past and future activities

(Meeting of experts)

Work on modern languages has formed part of the programme of the CCC virtually since its creation. The Conference of European Ministers of Education stressed on two occasions, at the Hamburg (1961) and Rome (1962) meetings, the importance of this subject; and in 1964 it was declared a "Major Project". Since then a large number of meetings and symposia have been held dealing with the various aspects of modern language teaching and learning at the various educational levels. The work done in this field as well as the adopted conclusions and recommendations have helped to alert the educational authorities in member States to the importance of modern language teaching, and have exerted some influence over the way in which this teaching is conducted.

A general review of the past activities was suggested by the CCC in 1973, with the aim of determining, in particular, priorities for future action in this field. For this purpose, two meetings were held. The first of these which took place at Strasbourg in June 1973, brought together experts to assess the past work, to evaluate the present situation, and on this foundation, to outline a programme for the medium-term future centred around priorities corresponding to the ascertained needs of governments. In this context, both the situation in respect of modern language teaching and learning in member countries as well as the activities of the Council of Europe in this field were examined.

The December meeting completed the evaluation and stocktaking exercise by reviewing past work in the tertiary and adult education (Out-of-School) sectors, thus making it possible for the CCC to draw up a coherent programme, covering all educational levels of its modern language programme.

Two reports were presented to the meeting. The first of these dealt with the modern language activities of the Committee for Higher Education and Research, and was commented upon by Dr. E. Weis (Austria). The second one was a progress report on "Research and Development for a European unit/credit system for modern language learning by adults" which was prepared and introduced by Prof. J. L. M. Trim (United Kingdom), Project Director.

The activities of the Committee for Higher Education and Research in the field of modern languages have been directed largely towards improved teacher training at university level. The participants were unanimous in stating that the institution of language centres at universities was generally gaining ground. The provision of language instruction for foreign university students and the status of modern language lectors teaching abroad were the two other questions dealt with by the meeting.

In the adult education sector, it is hoped that the unit/credit approach will lead to an increased production and possible co-ordination of media-based learning systems in Europe. A statement of principles of the organisation of such systems is being prepared. Contacts have been established with various media agencies which intend to conduct pilot experiments following the principles and pursuing the objectives of the project. These agencies include the BBC (United Kingdom) and the TRU (Sweden). Similar multimedia language courses are envisaged in Austria, France and the Federal Republic of Germany. With these experiments in different countries and in different languages the scheme will be supported with practical and concrete examples.

After having made a detailed survey of the work in these two sectors, the meeting indicated guidelines and formulated suggestions for the future planning of the CCC's modern language programme.

The Institution of a European Modern Language Certificate, an idea which had been advanced at the June meeting was not generally accepted. Alternatives were proposed concerning the establishment of a Council of Europe Board for the Validation of National Examinations and a European Certificate of Modern Language Teachers. The latter proposal was considered to have a wider application.

Other important points raised concerned:

— the teacher training and the teacher exchanges;
— a study of language needs;
— the problem of continuity in modern language teaching;
— linguistic problems of migrant workers and their children;
— national centres and co-operation with CILT (Centre for Information on Language Teaching and Research, London).

Documents: *DECS/Inf (73) 8;*
CCC/ESR (73) 26; 81;
DECS/EGT (73) 44; CCC/EGT (74) 2.

Second Part

THE SOCIO-CULTURALLY HANDICAPPED

Educational Research Symposium, Ghent, 24th-28th September 1973

The Educational Research Symposium at Ghent was the fifth in the series of research symposia sponsored by the Educational Research Committee. The aim of these symposia is to confront research findings and administrative experience in a specific field and to serve to detect "growing points" in the vast domain of researchable issues of interest to both governments and the research community. The theme of the Ghent symposium, which was organised under the auspices of the Council of Europe by the Belgian authorities, was "The socio-culturally handicapped — from compensatory to individualised education: a development of concepts with particular regard to pre-primary and primary education". The symposium was chaired by Mr. V. Geens, Director of Secondary Education, Dutch-speaking region, Belgian Ministry of Education and Culture.

We reproduce below a background paper prepared by A. M. Thirion (University of Liège); reports on four Belgian research projects supported by the Bernard Van Leer Foundation with an introductory lecture by P. Osterrieth (University of Brussels); a report by A. H. Halsey (University of Oxford) on the British educational priority area project; the lectures of W. De Coster (University of Ghent), K-G. Stukát (University of Göteborg) and P. Perrenoud (Sociological Research Service, Geneva); the report of one of the symposium's working parties, and the summing-up lecture of G. De Landsheere (University of Liège).

Participants expressed the view that it would be useful for researchers working in this field to meet again together to discuss common research problems. The Council for Cultural Co-operation was informed accordingly and it has granted the necessary funds for a meeting in 1974 of researchers concerned with compensatory education.

REPORTS ON RESEARCH PROJECTS

Evaluation of compensatory education programmes

by A. M. THIRION,
University of Liège.

A short while ago, an educationist said of our work, "I have no faith in this project of yours: it's doomed to failure". Were his words over-pessimistic — or simply realistic? It is certainly true that the record of twelve years of research on compensatory education is not exactly encouraging. The Westinghouse report (1), in particular, has shown that the United States government's mammoth project "Head Start" has had little effect on the scholastic performance of children from depressed areas.

The researcher's attitude to poverty: the need to define one's stand

It was essential at the start to ask ourselves the reason for these failures and to try to discover how they might be avoided in the future, but even before assessing the results of the research that has been done on compensatory education, we must pluck up courage to put the key question: "What should the researcher's attitude and approach be to poverty and social inequality?"

Research, like education, is dependent on society and its values. We know the importance our western society places on productivity, on the technology which sustains it, and on the material success of the individual, which sanctions it. This explains the sometimes cut-throat competition between individuals lacking almost all sense of fellowship.

It would be naive to imagine that the present enthusiasm for pre-school education is untouched by economic and political considerations. People only too easily forget that even the results of research are often in keeping with current demands. It is interesting to note, for example, that ever since the economy proved unable to function without a vast number of women in the labour force, research, which for so long stressed the harmful effects of the mother's absence from the home, now tends to prove that the consequences of the mother going out to work are not, after all, so catastrophic — and could even be beneficial. Be that as it may, a person's productive worth depends more and more on the extent of his knowledge and his capacity to learn. It is therefore necessary to create as it were a "brain bank" and to invest in the nation's intellectual capital right from the pre-school stage. In the United States the shock caused by the launching of the first Sputnik greatly accelerated this process.

Two young English researchers, D. C. Morton and D. R. Watson (2) made a very pertinent sociological analysis of the relations between compensatory education and contemporary liberalism in the United States. These two writers maintain that compensatory educationists' liberal values are implicit in their ideology, hypotheses, concepts, strategies and techniques of evaluation, and that despite an appearance of "scientific neutrality", they identify with the dominant groups.

This seems a perfectly admissible theory. We might go further and state that research, like information, is never neutral, never objective: it is either more or less honest. We, for our part, are obliged by considerations of honesty first to define the limits of our action and expose the illusion of posing social problems in terms of psychology and of presenting our solutions in terms of education.

The solutions advocated concern economists, sociologists and — above all — politicians as much as educationists. It is too easy to blame the scholastic world for every evil and suggest that it is "the schoolteachers who have lost the battle against social inequality" (3). It would be far better to support a social policy deliberately aimed at uprooting the deep-growing causes of inequality and a form of research that serves, not — as so often happens today — to increase the quantity of consumer goods, but rather to improve the quality of life.

Without losing sight of the connections between the object of his particular research and social problems in general, the research worker must apply himself to what is within his competence: the study of causes, the development of means and the verification of their efficacy.

Research and action — Are they incompatible?

At a recent conference (4), G. de Landsheere emphasised the importance of drawing a distinction between *research*, whether oriented towards conclusions (i. e. the researcher's point of view) or towards decisions (i. e. the user's point of view, which is often that of the sponsor — though happily not so in our case) and *development*, which is concerned with the scientific development of ways and means. Conclusion oriented research enables one to explain phenomena; decision oriented research finds expression in action.

G. de Landsheere writes, "It is above all conclusion-oriented research that produces the frontier

(1) Granger, R. L., et al.: The Impact of Head Start. *An evaluation of the effects of head start on children's cognitive and affective development*. Vol. 1. Report to the U.S. Office of Economic Opportunity by Westinghouse Learning Corporation and Ohio University, 1969.

(2) Morton, D. C. and Watson, D. R.: Compensatory education and contemporary liberalism in the United States: a sociological view, in *International Review of Education*, XVII, 1971, 3.

(3) Snyders, G.: Est-ce le maître d'école qui a perdu la bataille contre les inégalités sociales?, *Enfance*, 1970, 1.

(4) De Landsheere, G.: Tendances de la recherche expérimentale en éducation, in *Education*, Brussels, 1971, p. 132.

methods and techniques that will become the keys to decision-oriented research and to development. Furthermore, experience shows that the combination in one and the same team of conclusion-oriented research and development research promotes a dynamic and creative approach" (5). However, this combination of approaches, leading simultaneously to explanation and action, is rarely achieved in the situation with which we are concerned.

Once again we see how orientations differ according to cultural contexts. Whereas countries with a French culture develop highly structured models and sociological or historico-political analyses that are brilliant in their conception but often cut off from reality, the Anglo-Saxon countries put their faith in an empirical approach, and take immediate efficacy as their sole criterion (6).

In another connection, in a single socio-cultural context such as we find in the United States, investigations show the persistent incompatibilities between research and action in the field of compensatory education (7).

The politician and the research worker judge the success of a project by different standards. The former is interested in its short-term ability to pay dividends and seeks immediate practical solutions to specific problems based on the present state of information and knowledge. The latter seeks data enabling him to draw general conclusions to orient action towards the causes and not the symptoms of a phenomenon, in accordance with a long-term view of knowledge. For the politician time is pressing; for the researcher it is always "urgent to wait".

With the introduction of research into action programmes there is a risk of bringing in an element of uncertainty which complicates the taking of decisions. And if this element is not present, the situation is all the more serious; only too often the user of a research programme (whether politician or educationist) considers the findings of the research as facts, not hypotheses, and sometimes risks lives in an insane gamble. Some people go so far as to state that theories such as those of Jensen and even Bernstein and, incidentally, the publication of the mediocre results of the intervention programmes, may have and may yet seriously compromise the Civil Rights Movement in the States.

Economic and political pressures falsify research, particularly where the responsible authority is both user and sponsor. There is an implicit but none the less strong demand on the part of too many people who finance research for the results of the action to be not merely immediate but also positive. One should not therefore be surprised at the lack of clarity with which aims are outlined nor at the propagandist style of so many reports submitted by research teams that just want to maintain their existence. It is not by chance that in the Bibliography published by the Bernard van Leer Foundation (8), very few titles deal specifically with the analysis of difficulties leading to the failure of a project.

Obviously the evaluation of large-scale programmes is the most vulnerable to political and social pressures. The problem in research such as ours, carried out in a university setting, is exactly the opposite: the danger is that the results may have no influence whatsoever on the decisions made — which is not very good for the researcher's morale.

It must be made quite clear that the policy behind the research instigated by the Bernard van Leer Foundation has enabled the Belgian project to avoid certain hazards mentioned above. Thanks to co-ordination at a national level, the research plan has allowed each team to follow its own path whether it is oriented towards explanation or action, or is endeavouring to keep that difficult balance between the two; by eschewing partiality, competitive spirit and the blind wish to prove something that so often bedevils research. On the one hand the Foundation assures the research teams' intellectual and financial independence of the organising bodies, and yet on the other hand insists on the necessity for dialogue between the teams and the regional authorities so that the work done may have general application. Finally, the Foundation alleviates the major drawback of most research programmes: the brevity of their duration. A reasonable span of five years means that methods can be continually adapted and that results can be followed up. This is a very important factor when one realises that the basic problem of present-day programmes is the rate at which positive effects are nullified.

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(5) De Landsheere, G., op. cit., p. 17.

(6) De Landsheere, G.: Philosophie et politique de la recherche en éducation, in *Education*, 1970, 125.

(7) See McDill, E. L. et al.: *Strategies for success in compensatory education, an appraisal of evaluation research*. The Johns Hopking Press, 1969.

(8) *Compensatory early childhood education. A selective working bibliography*. The Hague, Bernard Von Leer Foundation, 1971.

As far as we are concerned, our special aim is to identify "pertinent" variables as much at the level of explaining social handicap as at the level of the action taken.

Deficiencies in the explanation of causes

Let us first of all consider the problems of explaining the socio-economic factors in development.

Early optimism has given way to a profoundly pessimistic view of the long-term effects of compensatory education in the past and the possible results of future endeavour. "This impression is supported by a study of the literature, which has changed from predominantly reporting successful programmes to a concern with articles questioning the criteria by which such successes were measured, and more widely an investigation into some of the assumptions upon which such projects were based" (9).

Evaluation of compensatory programmes shows that assumptions made in research are more often than not based on very slender grounds. Nevertheless, if the compensatory education movement has made real strides only since 1960, it is equally true that studies concerning the connection between background and development date from a long while back and are very numerous.

M. Reuchlin (10) recently recalled a discussion on the matter in 1938, in which it was stated that "The opportune moment has come for a full critical discussion of this group of problems in order to prepare the ground for really crucial research". Why, therefore, M. Reuchlin asks, do this discussion and this vital research seem to be still hanging fire in 1970. He suggests the following answers:

— Lack of contact between theorists and practitioners. The theorists construct models in a vacuum which are rarely tried out under the unpredictable conditions of ordinary, everyday life. The practitioners mistrust theories that they find difficult — and really not worth the effort — to understand, and which seem to them less reliable than "the human touch" and "practical experience".

— The fact that much research has served only to illustrate philosophical and political theories. M. Reuchlin stresses "the scientific sterility inevitably associated with such an approach", which in its turn implied "a somewhat casual attitude towards the rules governing experimental techniques that are liable to restrict the liberties it is possible to take with the facts". These kinds of research, even those of most recent date, repeat the same errors of methodology of which the most commonly met is confusion between association and causality.

The connection between socio-economic origins and development is undeniable. How then can it be explained? Most research is empirical and is based on the conviction that environment can profoundly influence development.

Recently A. R. Jensen (11) has reopened the old argument on heredity and environment, maintaining that the results of compensatory programmes were disappointing because heredity mechanisms had not been taken into consideration. This attitude produced strong reactions in the United States, particularly as Jensen's methodology is naïve, and the attempt to validate his theory empirically hardly stands up to criticism.

However, Reuchlin avers that the examination of attempts at explanation founded on a theory of heredity is "all the more necessary given that this kind of hypothesis appears to be the object of a certain censure" (12). And this censure illustrates once again "the confusion between scientific analysis and the adoption of a philosophical, political and social stance (in this sense of militant, liberal action on behalf of the disadvantaged)".

Getting away from a normative view of socio-cultural differences

This is not the place to enlarge on various interpretations provided by different psychological and sociological theories, but I should like to draw attention to the current attempt by research workers in different fields to get away from a normative view of cultural differences.

Educational sociology has long been unable "to discuss working-class and lower-middle class values

(9) Little, A. and Smith, G.: *Strategies of Compensation: a review of educational projects for the disadvantaged in the United States*. Paris OECD 1971, p. 14.

(10) Reuchlin, M.: Les facteurs socio-économiques du développement cognitif, *Milieu et développement*, Paris, PUF, 1971.

(11) Jensen, A. R.: How much can we boost IQ and *scholastic achievement? Harvard Educational Review*, 38, 1, 1969.

(12) M. Reuchlin, op. cit.

other than in terms of a lack of values and a lack of ambition, by comparison with upper-class values, taken quite arbitrarily as the norm, if not the ideal" (13).

J.-C. Combessie gives us an excellent example of class ethnocentrism in the changes observed in ways of bringing up children before and after the Second World War. "What was once called 'laxity' has become 'tolerance' now it has been adopted by the middle classes, whilst in popular usage 'proper control' has been down-graded to 'authoritarianism' " (14).

In the same way, in psychology, differences have often been presented as general or specific deficiencies. There is a tendency to treat socio-educational problems as pathological ones — particularly in the case of dyslexia, an attitude that has been fiercely denounced by C. Chiland and the research staff of Centre de Recherche de l'Education spécialisée et de l'Adaptation Scolaire (CRESAS). And yet the partisans of "culture free tests" (which is a nonsensical term) or "culture fair tests" have not shown proof of making any headway among the disadvantaged.

Argument over methods grows more heated now that it is not only their components that are being questioned but the very relationship between child and adult implied in the way they are formulated. I shall return to this possible bias; for the moment let us just note that those who reject the classic methods of evaluation, tests and observation by the teachers, have not yet come up with anything to put in their place.

Nevertheless, the realisation of the extent to which cultures differ demands a radical change of attitude on the part of those who use the existing instruments, be they sociologists, psychologists, psychiatrists, or educational research workers.

At pre-school level, diagnostic and prognostic evaluation can have the most serious consequences — particularly in selecting children for special classes. The very high percentage of disadvantaged children in special classes is a proof that the expression *dépister, c'est dévoyer* (15) is no exaggeration. C. Chiland (16) goes as far as to state "that it is never possible to make predictions in individual cases". If the teachers' knowledge of psychology on the one hand, and their part in the educational process, on the other, are not revolutionised, publishing the results of diagnostic tests could well ruin a number of children's chances of success (17).

More and more studies show that just because motivations and speech habits do not conform to middle class standards, it does not mean there are no standards, merely that they are different ones. The need to "belong" often overrides the need to accomplish (18). Likewise, the disadvantaged child is not "non-verbal". He uses definite linguistic structures that must be understood before being deliberately modified.

Attempts at finding explanations

Various authors (Zigler, Reuchlin, Combessie) revert to descriptive data on parent-child interactions in an attempt to evolve a theory to account for the differentiating effects of this reciprocal action. According to Combessie "values with highest explanatory capacity are at the same time the least self-conscious" (19) such as the attitude to time. For some schooling is not instruction but acculturation, for others it is a reinforcement of the culture of the home.

Zigler and Reuchlin seek to discover what are, according to general theories of development such as those of Piaget, "the general characteristics of circumstances that favour intellectual development". They then return to the descriptive data to see whether the physical circumstances of the child's development present these general characteristics more often in socially advantaged categories. "The usefulness of this attempt to find explanations is obviously limited: the theories used were plainly not constructed for this purpose; and the descriptive data have not been collated to prove the hypotheses which these theories may, nevertheless, suggest." (20)

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(13) Perrenoud, P.: *Stratification socio-culturelle et réussite scolaire*, Droz. Genève, 1970, p. 32.

(14) Combessie, J.-C.: Éducation et valeurs de classe dans la sociologie américaine, in *R. franç. sociol.*, X, 1969, 12-36.

(15) "To detect is to deflect (from the proper course)"; Herne, C.: C'est l'école (et rien d'autre) qui produit les dyslexiques. *Education*, 1972, 133.

(16) Chiland, C.: *L'enfant de six ans et son avenir*, Paris, PUF, 1971.

(17) Chiland, C.: Conditions réelles de l'apprentissage de la langue écrite. La dyslexie en question, Cresas, Paris, A. Colin, 1972.

(18) See De Landsheere, G.: *Classification des recherches longitudinales et définition des variables adventices*. Paris, OECD, 1970, p. 34.

(19) Combessie, J.-C., op. cit., p. 33.

(20) Reuchlin, M., op. cit., p. 127.

In explaining the relations between socio-cultural background and development, we "do indeed know the point of departure: inequalities of culture, education and intelligence among the parents; and the point of arrival: inequalities of scholastic performance despite a rigorously fair system of teaching. But we have not been able to fill in all the mediatory processes. The immense difficulty of measuring the intermediate variables allows us to understand the reasons for this gap, not to ignore it ... The intermediate variables fall within the province of a psychological study of the intelligence and learning that would have to be considered from a sociological and comparative standpoint, and also of a socio-psychological study focused on the cognitive and linguistic interactions within the family group" (21). This research is of necessity interdisciplinary.

At this stage in my account, I think it is essential to distinguish between two levels of analysis:

— The socio-economic and psycho-sociological level which involves the study of the social structure in relation to the characteristics of the family and the school. This kind of analysis emerges as "the explanation of the social by the social".

— The psycho-genetic level which involves an analysis of individual differences common to each group of "disadvantaged", which, when it comes to action, will raise the problem of diagnostic evaluation and the adjustment of the programme to individual characteristics.

Before considering programmes of compensatory education, we should note that some researchers stop at the first level of analysis. These are the ones who explain inability to adapt to school life in socio-political and socio-educational terms. To be logical, or at least honest with themselves, they condemn a situation but take no action to remedy it. Action would of necessity mean commitment. This approach is a accompanied by a very firm view of the relations between research and action, the first being considered as incapable of guiding the second. "Unless one adopts a resolutely utopian outlook, one cannot imagine science ever controlling all the current factors in a given educational situation." (22) If we had adopted that outlook, my account would stop here. As it is, we are all committed to action.

(21) Perrenoud, P., op. cit., p. 12.
(22) CRESAS: *La dyslexie en question*. op. cit., p. 171.

Compensation strategies

An incredible number of programmes have been devised to meet the complex nature of the problem. There is still no orthodoxy in compensatory education. This proliferation can be seen as a consequence of the gap at the explanatory level. Furthermore, one has the impression that everyone re-invents the wheel and starts again from scratch.

As A. Little and G. Smith say, "the observer perhaps experiences what is alleged to be one of the major problems of the disadvantaged; bombarded with a mass of details about programmes, he is unable to distinguish any dominant patterns — any 'figure to ground' relationships" (23).

Little and Smith have chosen to analyse compensatory education as an element of the current debate on changes in education. They distinguish broad strategies such as changing the learning situation, changing the relationship between the school and its setting, whether one sees the school as part of the community, or more radically, if one envisages the community controlling the school.

The Belgian project is indisputably concerned with the problem of relationships between the family and the school and institutional modifications. I will dwell on changes affecting the school, more particularly with regard to a characteristic aspect of compensatory education: the introduction of evaluation and research to check the action programmes, that is to say to describe and influence innovations in education.

Methods of evaluation

Before developing this point, and in order to avoid any possibility of confusion, I should like to specify certain concepts relative to the requirements and methods of evaluation.

M. Scriven (24) has suggested that the evaluation of a project should include three requisite relations.

a. the relation between the aims and content of the programme;

b. the relation between the aims and instruments of evaluation;

(23) OECD, p. 127.
(24) Tyler, R. et al.: *Perspectives of curriculum evaluation*, AERA Monograph Series on Curriculum Evaluation, Chicago, 1967.

c. the relation between the programmes and the instruments of evaluation.

Unless there is coherence between these relations, the evaluation is in jeopardy.

Evaluation can be diagnostic or prognostic, but we will dwell not on these dimensions, which we have just discussed, but on evaluation's role in checking on the action. Evaluation is, then, either normative or formative. The function of normative evaluation is to classify and select. Tests, whether of intelligence or knowledge, enable one to place an individual on a statistical scale. The performance of one individual is judged by reference to another's. The pupil is judged by the speed with which he acquires knowledge or skills. Formative evaluation is focused on the development of attainments. The object is to optimise the processes of teaching and learning. The subject is observed in terms of his progress towards attainment. The criteria are specific learning units relative to a content or process of development.

Aims and methods of evaluation: a frequently makeshift arrangement

Let us now compare and contrast various concepts of socio-cultural differences, aims and types of evaluation through different types of programmes which I have divided, in an admittedly simplistic fashion, into three main categories.

The object of *enrichment programmes* is to raise the aggregate of intellectual potential, limited at the start by a lack of stimuli, through increasing the opportunities for and means of enlarging experience. The earliest programmes like D. Biber's come under this heading. Nowadays this approach is mainly supported by people like Mc. V. Hunt who favour a policy of intervention at a very early age. IQ tests, tests of a general or more specific nature (e. g. concentrating on, say, motor activity, perception, or language) are customarily used to evaluate this type of programme.

Projects aimed at achieving scholastic success rely on the theory that the sooner a child starts the more chance he has of making up lost ground. The content of these programmes is very highly structured whether it be a specific one based on the acquisition of academic skills (Engelmann) or the formation of concepts (Berieter) or more general (Smilansky, Gray and Deutsch). It is projects like these that have produced the first achievement tests for the nursery school. They mark an indiscutable progress in the evolution of the aims, content and instruments of evaluation.

Projects based on a theory of development postulate that every child must of necessity pass through a succession of stages. The process of learning is more important than what is learnt. The norm is plainly ortho-genetic. Formative evaluation takes precedence over summative evaluation. Piaget-type scales are gradually developed. Typical followers of this line of throught are Kamii, Kohlberg and Zigler.

Two points emerge. On the one hand nearly all instruments of evaluation emanate from psychology where they are used for purposes other than checking changes in education. On the other hand, the accuracy of the evaluation is in direct proportion to the specificity of the aims. This is the case in Engelmann's programme. Obviously it is not surprising that the results of such experiments should be the most spectacular.

The success of any project is relative. The point is that the aims must be coherent from both an affective and a cognitive point of view and compatible with each other both in the short and the long term.

Hence it is that Engelmann and Bereiter have both strongly criticised the traditional nursery school because it prolongs and completes the education of middle class families at the expense of the needs of disadvantaged children. Yet by putting the emphasis on the learning of facts, on the adult who transmits them and on the mechanism of early learning, they restrict the child's independence and creativity. If the real cultural revolution is the ability to think for oneself, the programme of these researchers might be considered as anti-democratic; they deny the traditional aims of the nursery school so as the better to further general social aims — to produce a competitive and economically productive adult.

In most cases, the aims are very general and vague (to break the vicious circle of poverty, to enrich the child's background, to prepare him for school, and so forth) and the sacred standard of measurement is the I. Q. which can be interpreted any way one likes.

It is extremely difficult to discover if the programme is profitable because it really works or because it brings into play factors that are easy to change and therefore, in all probability, not valid. Let us bear in mind that when social and political

pressures are important, as in the case of large scale programmes such as Head Start, it is no accident that the aims stay vague.

The problems of evaluation are thorniest on the rare occasions where the aims are really original or introduce factors that cannot be measured by traditional methods (e. g. the warmth and sensitivity of the teachers, the need for accomplishment, independence, identification . . .).

All these problems show up the difficulties, indeed sometimes the incompatibilities, between research and action. Whilst within the framework of universities and research departments the orthodox convergent programmes are carried out under conditions where results can be thoroughly verified, the original thinkers, the revolutionaries (who in education are often non-educationists) are developing programmes whose results are almost impossible to check.

There always seems to be the conflict in the researcher between his wish to be objective and his wish to be useful. In view of the difficulty of evaluating a programme of action, certain writers have suggested that once the aims and plan of the research have been agreed upon, "the researcher must continue to remain within the environment, like a snarling watch-dog, ready to oppose alterations in programmes and procedures that would render his evaluation efforts useless" ([25]).

A necessary perspective: process analysis

When all is said and done, the evidence of success or failure is neither essential nor of much interest from the point of view of the generalization of programmes. What we really must know is what happens between pre-test and post-test, that is to say the process of the change. This dynamic perspective would make it possible to resolve the present dilemma of compensatory education, which is how to reconcile flexibility in the action with rigour in evaluation.

Apparently the majority of researchers have behaved like "snarling watch-dogs". Actually, we know, from over three years experience of it, that the development of an action programme has to be dynamic and evolve according to circumstances.

"Intrinsic or internal" evaluation which concerns the changing approach to aims and methods must be an integral part of a compensatory education programme, if it is to have any significance. C. Kamii ([26]) gives us an example, all too rare in the literature on the subject, of this approach applied to the conception of a Piaget-type programme.

At this level, formative evaluation plays a fundamental role. It provides an essential feedback which makes it possible to improve the programme by continually readjusting the action.

If compensatory education has not fulfilled all its expectations, it seems nevertheless to have made one major step forward at pre-school level: there is "growing reciprocal action between the results of basic research, evaluation and the development of action programmes".

What is a good programme?

Can one, at the present moment, say what comprises a "good" programme? It is obviously a legitimate question to ask, but it is probably too early to expect an answer. We have tried to see the light by comparing different programmes, but this method only serves to complicate the problem of evaluation. It raises the acute problem of intermediary variables, as in the case of explaining the causes of socio-cultural handicaps.

Let us take a down-to-earth analogy with physical growth and compare the existing programmes with different diets. It is obvious that the different ways in which people develop are not proportionate to the variety of food they eat: whether you eat steak or fish you take in a certain amount of protein essential to growth. The problem of compensatory education would be simplified if one knew what corresponded to proteins in the sphere of educational psychology. Each team taking part in the Belgian project is trying in its own fashion to discover what are these basic foods (the structuring conditions, the optimal conditions for development, etc.).

The results of Perry's comparison of pre-school programmes could be equally well interpreted in this way. Three different types of projects were compared under strict experimental conditions: the first concentrated on social and emotional development, the second on cognitive development, and the third on language training. Contrary to all expectations, there was no significant difference in the results. The main explanation resulted from the fact

(25) OECD, op. cit. p. 116.

(26) Kamii, C. et al.: Pedagogical Applications of Piaget's theory. *Poeple Watching*, Vol. I, 1971.

that the three projects, although very different from a theoretical and practical point of view had the same "staffing model". The people responsible for the three different projects spent the same amount of time on planning and developing clear objectives, on discussing day-to-day arrangements and on home visits to the children in the programme. "The conclusion seems to be that substantial gains may stem not so much from well-oiled aspects of the curriculum, but from careful planning, high teacher commitment to programme objectives and methods, and resources of time and money to carry out activities to support classroom work" (27).

It is obvious that a comparative study of the various existing forms of intervention can only be made at a high level. The IEA (International Association for the Evaluation of School Achievement) is a body which could tackle this problem and initiate the variety of complex analyses that it requires.

Until we have the results of such a piece of research, let us consider some positive strategies. The success of a project presupposes primarily:

- a reduction in the number of children per teacher;
- precise definition of general and specific aims;
- the establishment of a suitable form of evaluation;
- emphasis on cognitive development without neglecting emotional development;
- educational continuity between both home and school and between nursery school and primary school;
- a programme that is well-structured, but more from the point of view of the teachers than from that of the children.

You may protest that these are pretty obvious proposals, but however self-evident they may seem you must admit that they are more honoured in theory than in performance.

Compensatory education and present educational reform

Compensatory education presupposes the reform of basic education. It is a matter of creating a pre-school education adapted to the needs of each child, and especially those children from socially and culturally deprived backgrounds. I stress the word *create:* you cannot imitate solutions valid in other social and political contexts. From numerous points of view the Belgian nursery school has been a pioneer and has always held a special position at an international level. It has an obligation to be a forerunner.

In the whole question of compensatory education, the cardinal error is perhaps to consider the school as a well-oiled machine, whose object is really to ensure the continuance of the social order. If we are to be realistic, we must recognise in the first place that every school is an area of conflict, or, better, a neurotic entity which vacillates between opting for authoritarianism or permissiveness, freedom of action or compulsion, emotion or reason, learning or doing, without making the essential choice.

If we are to opt for genuine *democratization*, the following are prerequisites:

- an education policy of "positive discrimination";
- a precise definition of aims;
- the indispensable introduction of evaluation.

This last requirement is directly connected with the honesty of the politicians who must support factual criticism.

The reforms at present contemplated tie up with progressive teaching methods. The point of departure is the child. But which child? And from what surroundings? Concentration on language and mathematics takes precedence over what has long been the basis of the nursery school: study of the child's environment. We know how this "environment" has been "manipulated" by the teachers and degenerated into "centres of interest". Nevertheless, if they are properly understood, they do imply recognition of the child's native culture.

Ultimately our conception of compensatory education comes close to a certain formula of *mastery learning* that is to say the optimisation of the educational process. This approach would be mere technocracy, if it did not presuppose a radical change of attitude. The teacher must be the agent and not the subject of reform. Too few compensatory education programmes are operated *with* the teachers: it is a *sine qua non* for them to regain independence and initiative in the job of teaching and have at their disposal the means of evaluating their own work. This means, once more, the development of a true action/research programme, in which the practitioner and the research worker are pursuing the same aims.

(27) OECD, op. cit. p. 64.

The four Belgian research projects: Introduction

by P. OSTERRIETH,
University of Brussels.

Cognitive and affective handicaps due to socio-cultural conditions raise a considerable number of psychological and educational problems, which are far from being solved and are not always formulated in very satisfactory terms.

Broadly speaking, it is known that an unusually high proportion of children whose background is one of socio-economic and socio-cultural deprivation have difficulty in adapting to the present school system, that they benefit little by the education they receive and that many display a kind of intellectual under-development by comparison with what the school system expects of them and with the performance of many of their contemporaries from more fortunate backgrounds.

Understandably but somewhat paradoxically, more effort has been spent on trying to compensate for this "handicap" or "inferiority" than on its precise identification and origin.

Is this specifically a school problem? There can be no doubt that the "handicap" appears as soon as a child starts school, but there are many indications that it is already apparent when a child enters nursery or pre-nursery school. If school began later, at the age of nine or ten years for example, the "handicap" would certainly be even more marked. In fact, we do not know the age or level of development at which it appears. Is this gap between children from under-privileged and privileged backgrounds limited merely to school results, which are normally taken for purposes of comparison, as if they constituted the one essential yardstick, or does it extend to other areas as well? Does schooling cause the handicap, does it encourage it or is it simply the key factor which reveals it? And what exactly is its nature? Is it mainly cognitive or instrumental, as most people seem to think, or could it be more a question of motivation, endemic to intra-psychic or relational dynamics?

Since the individual's psychological make-up develops through a process of constant interaction with his environment, it is certainly reasonable to come to the general conclusion that paucity of environmental stimuli is likely to limit his functional potential. But it may be going too far simply to declare that an economically under-privileged environment is insufficiently stimulating and makes an inadequate contribution to development of the individual's potential. Are similar "handicaps" never to be found in children from more favoured backgrounds? Where exactly are the environmental inadequacies and failings which are said to be characteristic of under-privileged backgrounds? They are known to exist in the field of language, undoubtedly a field of major importance. But is this enough to explain everything?

Obviously, any attempt at compensation is fraught with risk and the effectiveness of any preventive action is uncertain so long as all these questions remain unanswered. Since the autumn of 1969, some of these problems have been the focal point for complementary team research projects in four Belgian universities, and under the auspices of the Bernard Van Leer Foundation. Each team freely selected the area it planned to cover and the direction its research would take. Each adopted the methodology, techniques and instruments which seemed most suited to its purpose. Throughout the work the teams met frequently for exchanges of views and discussions both on their basic approach and on methodology. Such meetings were guarantee that, although the lines of research differed, the results would bring together a wealth of diversity. The Ministry of Education's general directorate for academic administration is also taking an active interest in this co-ordination and enabled the research teams to hold a preliminary meeting, on 7th to 9th December 1972, with experts in the field under study (the Esneux Colloquium on "The diagnosis and remedial treatment of socio-cultural handicaps") (1).

In the very limited space at our disposal, it is obviously impossible to go into details concerning the development of each of these research projects and show how the ideas and plans of each team took shape. It is also too early to draw general conclusions from a programme which is not yet completed. What is useful at this stage is to explain

(1) cf. *Recherche en éducation:* Recherches convergentes sur le diagnostic et la compensation des handicaps socio-culturels affectant des enfants de 0 à 7-8 ans. Brussels, Ministère de l'Éducation nationale et de la Culture française, Direction générale de l'Organisation des Études, 1973 (1 volume, 450 pages).

our lines of approach and thus to prompt discussion. A brief general description of the four projects will be given in alphabetical order.

The Brussels project

The Brussels team (Professor P. Osterrieth) believed that characteristics which can be grouped under the general heading of socio-cultural handicap develop very early, certainly before school age, and are probably related to the critical phases of infancy. It therefore concentrated on children between 6 and 24 months old and on the probable impact of parental attitudes on the child's earliest development. Just under 100 families of various socio-economic backgrounds were visited on three occasions; the mother was encouraged to talk freely, detailed information was obtained, precise observations made and the child's development level carefully tested. When the interviews were analysed, it was possible to isolate a number of factors indicative of certain basic attitudes in the mother which seemed likely to affect the child's development. These factors, or their various manifestations, are now being compared with the results of the baby-tests and with the criteria based on the socio-cultural background. In this way, it is hoped to determine certain relationship patterns which could, at an early stage, lead to inadequate or warped development, and this should make it possible to decide on means of preventive and compensatory action to be taken in early infancy, before the damage has become irreparable.

Parallel to this, in the same part of the city, the creche was chosen as a suitable milieu for an experiment aimed at enriching and improving the quality of experience, particularly as regards human relationships, which the young child encounters in such surrondings. The experiment of having a psychologist in the creche proved extremely fruitful, particularly in helping to personalise relations between staff and individual children, to socialise the children and to foster interaction between the creche and the family. The present trend towards mini-creches is partly a result of this experiment, as is the current interest in games libraries and exhibitions of well-designed toys.

The Ghent project

The Ghent team (Professor W. De Coster) had a dual aim: to study the psychology of the socially under-privileged child and its family milieu and to assess the possibilities for compensatory action. The first objective involved a sociological and psychological analysis of under-privileged milieux, which were found to be far more diverse than is usually thought, and a vast longitudinal study of children from these milieux. The latter entailed assessment by means of tests, experimental situations and free and structured observation, the aim being to bring out the children's characteristics from the most varied standpoints — cognitive, affective and motivational. The methods of assessment chosen revealed not only differences in levels of development in comparison with children from other milieux but also, on occasion, differences in behavioural structure and typology which were no less important.

This basic research goes hand in hand with compensatory action in the institutions. In the experimental creche of the University, the creation of a stimulating affective and intellectual atmosphere has proved to have a salutary effect on children's behaviour. At the kindergarten level, groups of under-privileged children were exposed, during an initial period, to a compensatory programme concentrated principally on perceptual and motor organisation and on verbal and logical structuration. At a later stage, a more structured programme was extended to include other behavioural sectors and was more fully integrated with ordinary class activities. Parents were also drawn in, notably by parents' evenings, which have aroused much interest. The detailed results are not yet available, but a favourable outcome seems nonetheless assured. The project is being continued into the first year of primary school, where the children who have completed the compensatory remedial programme at the kindergarten, are followed up, and the possibility of continuing the programme of intellectual and socio-affective enrichment is being considered.

The Liège project

The Liège team (Professor G. de Landsheere) has been chiefly concerned with optimum conditions for cognitive development at school from the pre-nursery class to the first year of primary school, in other words approximately from two to seven years. A preliminary diagnostic study of different aspects of cognitive functioning highlighted the well-known relationship between development level and social class, as well as the wide variation in individual performance among children from under-privileged backgrounds. It was then decided to move on from descriptive diagnosis to a func-

tional, comprehensive analysis of development and the differences observed. In this context, two lines of research have been followed simultaneously. The first, ethological in tendency, seeks to establish, by lengthy and detailed observation of children's behaviour, an exhaustive schedule of all interrelationships between the child and its school milieu. This will make it possible to provide the teacher with behaviour guide marks which have been almost completely lacking until now. The other consists of thoroughly analysing the linguistic and operational tests chosen, with a view to revealing the structures implied and the steps which lead to their formation.

The experiment proper was concentrated, both in the prenursery class and in the first year of primary school, on the teachers' behaviour and was based on a syllabus worked out in terms of specific and well-defined behaviour units and on continuous assessment of children's activities. This approach has proved highly successful. It has the special virtue of revealing the real mental processes which come into play between the beginning and end of the experiment. In the first year of primary school, the experiment was concerned with reading and mathematics, concentrating on operational definition of the teaching goals and on perfecting continuous analytical and formative assessment processes. Such assessment keeps the teacher constantly in touch with the difficulties which his pupils are encountering and enables him to adapt his teaching constantly both to the general class level and to individual children in terms of the criteria established. The results are most encouraging.

The Mons project

The Mons team (Professor J. Burion) has applied itself principally to clarifying and counteracting the educational difficulties created by the milieu of socially deprived children between the ages of three and seven years, many of foreign extraction. Its investigations and activities were simultaneously focused on the family and school milieux and on the interaction of the two. The most needy families were identified through the use of an overall index of relative deprivation. It was found that these were typified by the very modest level of their ambitions and expectations, the parents' limited school attendance, lack of concern for the children's schooling and the absence of cultural stimulus. An intensive and lengthy campaign was directed towards these families, first of all with film programmes designed to attract parents, then by means of parents' meetings, class visits, home talks on educational matters, simple educational brochures — all with the aim of arousing parents' interest in the educational process and steadily increasing their involvement.

At the same time an experiment was conducted with children in classes whose teachers had been trained to deal with under-privileged children. In small groups these children took part in activities designed to stimulate and organised by a peripatetic team of specialists; the activities were selected on the basis of an advisory file which had been prepared for each child, indicating his weakest points. The group on which this experiment was conducted achieved a significant IQ improvement, but progress slowed down during the holidays. The experiment was continued by giving the children an enriched programme and by involving teachers and parents. It is clear that any effective psychopedagogical campaign improves the performance of under-privileged children, but that their progress depends on parental collaboration and on the teachers' devotion and competence. The programme is currently being pursued with a drive to enrich vocabulary, the aim being to improve the quality of verbal communication between parents and children, by trying to develop the children's concept of space, and by using the Rohrschach test to assess the personalities of parents.

Reflection, experiments and the fact of being confronted with real situations have undoubtedly had a similar effect on all four teams. All of them encountered a number of problems and we should like, in conclusion, to refer to some of them.

The defining of socio-cultural and socio-economic criteria, which could be used to delimit privileged and under-privileged milieux in order to make comparisons between them possible proved far harder than expected. Not only does our nation's relatively high standard of living make it at times difficult to establish limits, but cultural and economic indices do not necessarily coincide. Many of the index systems currently in use proved unsatisfactory once the transition was made from a sociological to a psycho-sociological approach.

Many of the techniques currently used to measure psychological development or school achievement also proved inadequate or unsatisfactory for the purposes of our research. Once again we were shown how mistaken it is to rely solely on existing tests, however good they are thought to be. Each team found itself obliged to re-think these techniques fundamentally and even invent new ones,

permitting the transition from a straightforward diagnostic approach, centred on performance and final results to a more analytical and functional one, capable of revealing the actual processes which the subjects are undergoing.

As for procedure calculated to foster change and development and to ensure that children are subjected to more varied, and above all more adequate, stimuli, or designed to improve the effectiveness of educators, they were not, as can well be imagined, derived from conventional school practice but had to be invented and adapted to each research project, sometimes in the light of work done elsewhere. Predictably, co-operation between parents and teachers was everywhere found to be an essential factor.

In short, it is safe to say that each team was, in its own way, brought face to face with the paucity and relative inadequacy of available methods and the relative insufficiency and crudeness of our knowledge of the real conditions under which young children develop.

But above all, each of us has doubtless found himself re-thinking the actual concept of socio-cultural handicap. We all believe that it needs redefinition. For one thing, the assertion made regularly that the economically privileged social group represents the basic norm for optimum psychological development is patently open to question; this is really only one possible kind of development among others which can hardly be condemned offhand as being "less good", "less favourable", or likely to create "handicaps". Every milieu conditions development in a different way and certainly creates its own handicaps. There is no doubt that the development which each milieu provokes could be improved, but there is still no perfect or complete model for development. And it is no longer acceptable, from a psychological point of view, to define "handicap" with reference to an institution of school curriculum arbitrarily taken as constituting some kind of intangible optimum, but in fact merely the product of social, economic and historical developments, and barely influenced by anthropological, educational and psychological research.

What our investigators are in fact encountering at every turn, and what they are trying to define and combat is not a "handicap", an individual inadequacy, but an extraordinary inadequacy of the milieu and educational or pedagogic system in relation to the development characteristics of children. One could almost say, without too much exaggeration that the characteristic feature of humanity is its inability to bring up its children. Admittedly many of them cope, but think of the cost and look at the results! In any case, this is no reason for letting the others, who are numerous too, go under. In short, our concern is less to diagnose "the handicap", like an illness, or to "cure" certain children by compensatory measures than to transforming the whole educational process in which family, school, parents and teachers figure prominently.

There is thus reason to hope that the convergent efforts of the four teams may point the way to a kind of family and preschool education which is at last capable of opening for each child the way to his optimum development instead of enclosing him in the limitations peculiar to his original milieu.

The Free University of Brussels research project

For the psychologist, accustomed to consider man's development in its dynamic perspective, as movement or trajectory, the weakness of certain remedial projects and the ambiguity of the results obtained by various compensatory programmes seem linked to their failure to consider the symptoms of socio-cultural handicap other than at the time when treatment becomes desirable. These symptoms are rarely viewed in the light of the individual's personal history. At the point when they are considered, however, they have usually already undergone a certain evolution in time, and their relationship with causal factors may have become distant and blurred. To ignore the causal factors of the handicap and to disregard the stages of its development, is to run the risk of just scratching the surface, neglecting the fundamentals and the basic conditions of the phenomena which it is desired to change and taking no notice of intermediary phases which have either been unable to develop or which have developed in deviant fashion. As a consequence, surface treatment produces changes which are either of little practical benefit or lacking permanence and always likely to disappear.

In some cases, it might perhaps have been better to have been less expeditious, less eager to take action and to have reflected in the first instance on the nature of the factors which had produced the handicap, on the psychic level of development at the time when these factors became active, on there repercussions at that level and hence on the individual's subsequent development.

A psycho-genetic approach

The research undertaken by the Service de Psychologie génétique of the Free University of Brussels deliberately proceeded from a psycho-genetic standpoint, from that of the development of the individual's psychic make-up, evolving through interaction with its environment. Having accepted that the socio-cultural handicaps to be combated are the result of an inadequacy or imbalance in the contribution of the environment to this evolution, it seemed to us essential to grasp the nature of these inadequacies or imbalances and their mode of action on the developing psyche. This aim seemed to us the sine qua non for any successful preventive treatment and for any effective compensatory action. To bring in the role of economic, cultural or social factors is merely to state a number of coincidences which are only too obvious; it does not offer a practical or useful explanation of psychic development. Unless psychological underdevelopment can be eradicated by eradicating social inequality, it is at the level of the individual's psychic make-up that we must first try to understand and then to act.

Critical periods

As far as we know at present, it seems clear that an individual's milieu contains factors which produce psychological underdevelopment (corresponding to the idea of socio-cultural handicap), and which to a large extent exert an influence very early in life. It seems probable that factors distorting psychological development are the more fundamental and decisive the earlier they become active, in this way jeopardising all future development. Certainly it is in childhood that the danger of deprivation is most to be feared. Research has focussed largely on the period covering the beginning of schooling which is a time when symptoms become particularly noticeable through the child's exposure to demands determined from without. It seemed to us almost certain, however, that the socio-cultural handicap was already present before that age although less in evidence because there was no externally imposed programme. Because of the very early age at which the infant is intensely exposed to characteristics of its family milieu at the very time when the bases of its psychic make-up are forming, it seemed to us opportune to study the milieu characteristics of children from six months to two years. The earlier harmful factors are identified, the easier prevention will be and the better-advised compensatory action.

This approach is the more justified as genetic psychology tells us of the existence during infancy of *critical periods*, short in duration, during which the psychic development is especially sensitive to experiences which have a structuring effect. It is even recognised that if some of these experiences do not occur at a given point, during the phase of corresponding sensitivity, they do not have the same effect later, and the psychic make-up remains somehow incomplete and impaired. Many ethological facts confirm this belief. It is our conviction that much light would be shed on the whole problem of deprivation, if it were studied from the vantage point of critical periods.

Analysis of parental attitudes

But what are the requisite influences, conditions and experiences for normal development? What are the "critical events" which appear indispensable? How can they be recognised? It has to be admitted that our knowledge here is not very specific. One talks, of course, of the importance of the mother's affective warmth, of the importance of verbalisation, of sensory stimuli and of the reaction of objects and persons to the child's actions. It has to be admitted, however, that these indications are, when all is said and done rather vague. How do such general factors, as have been evoked in descriptive terms, affect the inner dynamism of psychic development?

To answer these questions, continuous and lengthy observation of all the infant's interactions with its original milieu would be needed, and this is obviously utopian. It is equally erroneous to isolate certain types of behaviour or interaction, since the self is a functional whole. For instance, it is well known that intellectual development — very much to the fore in the study of socio-cultural handicaps — is related to the individual's development as a whole. Variables of a physical, sensory, motor, perceptive, emotional, affective, relational and cognitive kind constantly interact in an individual and in the structuring of his self.

There is reason to believe, however, that at this primary level — as indeed throughout life — man

is moulded above all in and through his relationships with other people. In view of the quasi-parasitic status of the child, we admitted the current hypothesis that its relationship with its parents constitutes a capital and fundamental factor in the process of development. Parental attitudes seemed to us the principle vectors of most of the *critical experiences* determining the child's psychological development. Of all the many factors at work, it seemed to us fundamental to try to analyse parental attitudes.

But here again, it is impossible to observe everything, and a priori it cannot be established what merits particular attention. It seemed to us, however, that a mother, in talking freely about her child inevitably betrays profound feelings and basic attitudes. This appeared an approach of which to date there has been little systematic use and which presents a suitable substitute for the unattainable continuous observation. If a number of mothers talk to us freely about their children for an hour each, it is likely that close analysis of what they have said will reveal a spectrum of fundamental variables in maternal attitudes and hence of the child's actual experiences in its relationship with its mother. A content analysis by a team of psychologists of unstructured interviews with mothers has brought to light a number of attitude variables which seem likely to be significant in shaping the child's psychic make-up.

But are these variables significant from the developmental point of view? It is safe to predict that the child which at the right moment encounters the indispensable and "normal" "critical experiences" will develop normally: it has had the external stimulus indispensable to its development. However, in a child's development where these "critical experiences" do not occur or where they are deformed, there will be gaps and malformation; the child will have been deprived or inappropriately treated, and consequently is likely to swell the ranks of the socio-culturally handicapped. We shall therefore compare for each child the developmental level attained with the different variables of its relational experience, in the belief that if the variables in maternal attitude have an effect, it is bound to be reflected for better or for worse in the behaviourial repertory of the child. All things being equal moreover, a normal developmental level would indicate that the relational variables noted in the mother's talk have not had — or have not yet had in a short-term span — any harmful effect; a disturbed developmental level would indicate that among the variables present some are injurious to development.

Behaviourial inventory and development of each child

With this in view, the behaviourial inventory of each child needs to be drawn up with the greatest precision and the development level attained exactly defined. This is an extremely difficult task when dealing with under two-year-olds. On the basis of the well-known work of Gesell, Bruner and others, our team produced a baby-testing system which was both sensitive, precise, thorough and practicable. Considerable work was needed to produce it in the course of which we often had cause to notice the ambiguity and imprecision of techniques currently being used.

By collating variables in maternal attitudes and the baby-testing data for 90 physically normal children divided into age groups of 10, 15 and 21 months, we hope:

— to distinguish relational patterns which at a very early stage could cause developmental inadequacies likely to endanger the child's later development;

— to determine the developmental level at which these relational patterns are particularly deleterious.

It would then be possible to plan truly efficient preventive and compensatory action based on knowledge of psychological factors in early life leading to psychic under-development.

Social milieu

In our opinion it is possible that some of the influences discovered typify socio-economically underprivileged milieux, but this is not certain: psychic under-development is not the appurtenance of any one social class, far from it. Possibly these nefarious influences exist in all milieux, but they may be more easily compensated or masked by other factors in favoured milieux. Possibly some influences are harmful only in combination with others.

From a scientific point of view, it seemed to us indefensible to take a sample of socio-economically underprivileged milieux only: such a procedure is tantamount to stating that priviliged milieux present a picture of optimum development — an untenable pronouncement. Moreover, such an attitude would ignore extremely precious information as to the interaction of influences and the possible

relativity of their impact. Furthermore, prevention and compensation imply that we also have knowledge of the favourable influences which may exist in both groups. We are accordingly concerned with a sample taken from one Brussels locality containing different social and economic milieux, in suitable proportions.

Dialogue between action and research

Whilst this research, which on several counts may be qualified as fundamental, was being pursued, we did not neglect action. A psychologist was assigned, on a full-time basis to the creche at Anderlecht, at its principal's request, to buttress, study in depth and expand the psychopedagogical aspects of the work which is carried out there everyday. His task might be said to be "the introduction of practical psychology into the creche milieu". At a time when there is a perceptible need to increase the number of reception centres for very young children and to re-think in an educational and developmental perspective the philosophy behind them and the methods used, it seemed to us that such an experiment might contribute to improving public provision. Increasingly the creche is becoming a substitute for the family and a complementary milieu to it. It has thus an obligation, not only to care for the health of the children, but equally important, to foster their psychic development. On the one hand, the psychologist was able to encourage a certain number of changes at the human relationship level, with a view to transforming the child nurses' understanding of very small children and of their responsibilities towards them and also bringing them to see themselves as vectors of "critical experiences" indispensable to development. On the other, continuous observation of the children and of the attitudes of the nurses can support and clarify aspects of the research carried out at family level, for the milieu of the creche permits experimentation with educational or relational devices which are applicable in the family circle.

If the Brussels team has spotlighted certain fundamental problems which may erroneously appear somewhat remote from practice, at least at present, it has not, in so doing, neglected the need for action, so rightly stressed by the Bernard Van Leer Foundation. On the contrary, the team has established conditions for a dialogue between action and research, between practice and reflection.

The ultimate aim of this work is not surface compensation of one or other more or less limited aspect of socio-cultural handicaps. It is to seek better understanding of the causal factors of this handicap in order to sustain action which includes at one and the same time the child, its parents and complementary milieux. It seeks to work out a system which would have the function of assisting parents and lightening their load, of enlightening them as to their responsibilities, and also of equipping them to carry out better those fundamental tasks in which they are, in the last resort, irreplaceable.

The Ghent University research project

The social problem on which we based our research was the unsatisfactory school achievement of children from the lower social strata. Are there means by which this situation can be changed? Research in this field has to contend with several series of problems.

What is the situation? How does it come about? What are the relevant factors involved? This kind of research implies:

— Study of the child: Here we are confronted with the problem that, up until now, genetic psychology has not provided us with sufficient differential aspects of the development of the child.

— Study of the milieu: "Milieu" here includes not just the family but also the broader social context, the peer group, etc.

— Study of the school and the extent to which it meets the normal capabilities, needs and differences of the children.

What strategies can we devise to meet this problem, and how can we evaluate their effect when applied? In this context we find we have to deal with the following problems:

— operationalisation of the aims, expression of basic goals in terms of intermediate goals;

— the difficulty of isolating variables, especially those exerting an influence, within a mass of interacting variables;

— evaluation criteria and instruments;

— comparability of the experimental and control groups.

Study of the situation

By means of a questionnaire given to the parents, we collected data concerning the milieux of the children (four to five years of age) in the experimental and control groups. The questions concerned sociographic data and were designed to seek information on educational practices in the home. A large heterogeneity of educational practices was observed within each social stratum, and one of the conclusions reached after examination of the information produced by the questionnaire was that the concept "social class" (or rather "social stratification") could only be used as a point of departure for classification criteria in our study. We found that much of the information obtained from the literature on the subject under investigation could not be confirmed from the results of our questionnaire, and that some facts seemed to be less accentuated than might have been expected on the basis of a literature study alone.

An initial study with five-year-old children had for aim to find those personality variables that would be relevant to our main study. The factors studied were self-concept and anxiety. After trying out a series of tests, we singled out two instruments for our study: the "Where are you? Game" (self-concept), and the Anxiety Scale (based on Sarason's scale). The original hypothesis, namely that children from the lower social strata generally demonstrate more anxiety and lower self-esteem, was confirmed by our study.

Intelligence tests [Leiter International Performance Scale (LIPS) and the Amsterdam Intelligence Test for Children (AKIT)], verbal tests (UTANT), and tests of visual-motor co-ordination (Frostig) showed that, as a group, children from the lower social strata have a lower achievement level than the average for the entire population. Nevertheless, any interpretation of the results will always be somewhat unsatisfactory because of the difficulty of achieving a coherent description (both qualitative and quantitative) of a specific group of children.

By means of observation and a survey, a study was made of the social relations between:

— children and their kindergarten teacher;

— children amongst themselves in the classroom.

From literature studies, our own research, and experience gained from already implemented programmes, we constructed a basis upon which we could start to build a hypothesis. Whereas the initial study had a supplementary function in relation to the programme, the present study was set up independently with the intention of contributing fundamentally sound material for further application, on the one hand, and of contributing relevant information for further fundamental research on the other. This time our study made use of both a larger sample of children and children from the first grade in primary school. An intelligence test (the PMA adapted to the Flemish population) was given to the children at the beginning of the school year. At the end of the school year an extensive test of reading comprehension was given. Half of the parents of children in the experimental group were subjected to a questionnaire. Besides sociographic data, information was also collected concerning educational attitudes, attitudes towards the school, attitudes towards society, aspirations of parents for their children, etc. Questionnaires were given to both the fathers and the mothers of the children from the lower social strata. A large group of primary school teachers was given a questionnaire containing items principally directed towards the teachers' personal views of their vocation, and their attitudes and expectations in relation to their pupils. The teachers of the children involved in the research were asked to give a general evaluation of each of their pupils.

We are still analysing the data, but one of the conclusions we have already been able to come to is that the way in which the teachers view their vocation is a function of the social class of the children attending the school.

Difficulties encountered

In an *ex post facto* research the independent variables have already exerted an influence on the dependent variable before the start of the project, with the result that the certainty with which the independent variables can be evaluated is rather weak. The most important drawback is the lack of effective control possibilities. As modification of a single variable is not possible in this study, groups differing in the relevant dependent variable also differ in several inter-correlated variables. The problem is: which one can be viewed as a cause? For example, although the anxiety score is clearly related to the social class to which the pupil belongs, it diminishes when one takes the verbal

factor into account. While the anxiety score and the verbal factor are related to the social class, they are also strongly correlated with each other. It is evident that interpretation of the results is difficult.

The research project is of an applied nature, and is meant as a contribution that will lead to the reduction of a social problem. This approach has important repercussions:

— variables are examined to see how far they can be influenced;

— account has to be taken of the cost of the project in relation to such changes.

We believe that the present structure of primary school education and the training of the teachers are not as adequate as they should be for a satisfactory integration of children from the lower social strata. Since a solution to this problem is far beyond our means, we shall not be able to deal with this aspect in our study as fully as we would like.

Many studies on the problem under investigation are based on a comparison of the characteristics of groups that differ in achievement at school. However, it may be important to note that the nature of these studies does not allow the school itself to be taken into account as a variable. It is evident that a study also has to be made of the way in which the school itself handles these differences. This is why we consider it so important to examine the effect of the teaching methods in relation to the social origin of the children involved, and it is one of the reasons why we were always careful to examine the interaction effect of each strategy we used in Ghent. This will be especially important for the second phase of our programme, which involves entire classes.

A follow-up study covering a number of years can rarely be undertaken. In Ghent we chose to study children from the younger age groups because of the great importance of this period of life. Initially, we restricted ourselves to kindergarten children. To find out how the school influences the culture pattern of the children, it was necessary to extend our study to children in the first grade of primary school. We recently also extended the study to the pre-school age group (three months and older).

Evaluation instruments are not always adequate. We believe that countries with smallish populations will more often than not take and adapt tests from other countries, especially from the USA. This presents a problem for various reasons, and we found ourselves compelled to construct our own new instruments.

ELABORATION AND EVALUATION OF STRATEGIES

The Ghent project may be divided into two phases:

— a compensatory programme carried out during the period 1970—72;

— an activation programme from 1973 on.

The year between these two phases was a transitional year during which a replication of the compensation programme was carried out, the programme tested in a normal class situation, and a basis for the new activation programme worked out.

In general, one can postulate that the kind of programme used for disadvantaged children depends on the underlying assumptions about the nature and the causes of the disadvantage. The most important difference between applied scientific research and fundamental research is most probably the fact that in the case of the former decisions have to be taken that are not exclusively science based. In such cases the assumptions must be explicitly mentioned.

Furthermore, we would stress the desirability of adopting an action model that permits strict evaluation. This, of course, leads to questions such as:

— What assumptions do we make at the start of the study?

— Which population are we attempting to influence and how can we arrive at an adequate sampling procedure?

— What are our aims and how can we operationalise them?

— How do we evaluate the action, and how can the diverse extraneous variables be controlled?

Starting from the fact that children from the lower social strata are generally poor achievers at school, we limited our population to children of unskilled or semiskilled workers. We chose the profession of the father as a rough guide to the socio-cultural

environment of the child, as we know it to be strongly related to such important environmental factors as the home, neighbourhood and income. In addition to the correlation with various environmental criteria the profession of the father also seems to be a good predictor of an important series of psychological variables.

Determining the age of the children to be involved in the study was a problem. On the one hand, it is held that the most important phase in the education of the child is that occuring before five years of age. On the other hand, we preferred to work in an existing institutional context. As a compromise we chose to involve four- and five-year-old children attending kindergarten. Most children in Ghent attend kindergarten from the age of four years.

The compensation programme

We consider a child to be disadvantaged if, because of social or cultural circumstances he enters the school system with knowledge, skills and attitudes which impede learning.

We based our compensation programme on an extensive literature study. We limited ourselves to behaviour patterns supposed to be strongly related to satisfactory school achievement. Discussion here is limited to the first part of the programme, as the second part and the replication were very little different.

In early 1970 a large-scale survey was conducted concerning the cultural background of all children (age: 3—6 years) attending the pre-school institutions of Ghent. The information obtained made it possible to classify the population on the basis of socio-economic status. The results indicated that more than 50 % of the population of the pre-school institutions could be classified as lower working-class.

A random sample of 48 four-year-old lower class children was selected from six different schools. The children were grouped in clusters of six. Four clusters were randomly assigned to the experimental group and four clusters to the control group. From January 1971 until May 1972 each cluster of six children in the experimental group received a compensatory education programme for approximately eight hours a week.

The programme consists of two parts:

— the Frostig programme for perceptual-motor development,

— an enrichment programme focussing on the development of language skills and reasoning.

  This programme was developed at our own institute.

These two parts were not separated in practice, as the verbal reasoning programme made use of perception and the perceptual-motor programme also covered cognitive functions.

The programme, which was carried out by a kindergarten teacher from our department, covered a period of five months. The children in groups of six were taken out of the regular classroom to follow the programme. Individual help was only given to a child when it had been absent for a long period of time.

Tests to evaluate the programme were chosen according to what we thought would measure relevant aspects. The tests, used both as pre- and post-tests, were:

— Frostig with the following sub-tests
  - visual motor co-ordination;
  - perception of a figure and its background;
  - perceptual consistency;
  - perception of a location in a space;
  - perception of spatial relationships.

— The Leiter International Performance Scale

— The Amsterdam Intelligence Test for Children — Drenth (AKIT). This is a Dutch intelligence test, consisting of a number of sub-tests, each of which can be used as a separate instrument. The sub-tests we used were: verbal fluency, visual memory, name learning, exclusion, quantities, and definition of words.

The research design can be described as a two-factorial experiment, with two levels for each factor, namely experimental group/control group, and children of unskilled workers/children of semi-skilled workers.

Results

After the first compensatory year, the effect of the programme was very positive. The programme accounted for 33% of the variance of the total criterion (the sum of the standard scores of all the tests), 20% of the variance of the transfer criterion (the combination of the scores of the sub-tests

measuring general intelligence — we view this criterion as an indicator of the more general effect of the programme), and 36% of the Frostig criterion.

There was no significant difference between the children of the two social strata. The analysis did not indicate any interaction effects, and so we concluded the programme was equally effective for both groups of children.

After the summer vacation, however, the positive effect of the programme seemed to have largely disappeared.

Certain aspects, having a more permanent effect, generally did not meet the demands of our confirmation criteria. We must therefore conclude that although it seems possible to improve the development of certain learning aspects with our programme, the durability of these improvements is lacking.

The results of the replication of the programme were less encouraging, for reasons we are unable to explain. One can once again see the need for some kind of control of extraneous variables.

The effects of the application of the programme in a normal class situation were more encouraging. Here the class teacher carried out with her class (five-year-old children) a compact version of the compensation programme.

It was surprising to note, however, that the first trial of certain aspects of the new programme (the activation programme) in a class seemed as effective as the classroom version of the compensation programme. There were some differences between the results of the two programmes. The effect of the compensation programme was greater as regards the specific criteria, whilst the effect of the activation programme was greater as regards the transfer criteria. It is important to note that only some of the aspects of the new programme were tried out.

The activation programme

From the previous programme and the research that paralleled it, it was found that the classic compensation approach was too narrow in nature.

Basically, compensation can be described in the following terms. As a result of environmental situations, some children are disadvantaged in such a manner that extra help is needed to give them the chance to reach an adequate level of achievement at school. One consequence of this is that the school itself is rarely questioned as an important factor, with the result that compensation ends up merely attempting to adjust the children to the present school situation.

We came then to the following points of departure for the activation programme.

From compensation to activation: We believe that each learning process must have its roots in the child's experience. Whereas compensatory education is centred upon the deficiencies of children, activation is centred upon what is already present within the children.

From compensation to indivualization: Normal classroom situations have been characterized by rather uniform learning procedures, while compensatory education was seen as an adaptation of the child to the demands of this kind of learning process. As different life situations can result in different cultural patterns, it is possible that there exists no single learning process suited to the preschool experiences of all children. We therefore believe that individualization must be an integral part of any programme concerning socially disadvantaged children, and in consequence special attention will have to be given to the possibility of flexible group formation.

Broadening of aims as regards the child: We suspected the differences between social classes to be all too often symptomatic in nature. We therefore broadened our aims, attention being directed towards social and personality development. In attempting to achieve these aims, we did not give training in each area of development independently. The various activities of the programme were integrated into broader fields based on the experience and interests of the children involved.

Programme for an entire class: Whole classes were used because small-group projects cut children off from other members of their class, and all too often end up changing nothing in the school.

Broadening the area of influence to include not only the children but also their teachers: In this respect special attention is given to:

— the teacher's ability to perceive different cultural patterns;

— defining more clearly the aims of the education offered, account being taken of the various

possible strategies by which these aims may be achieved.

Influencing the home milieu with a view to increasing co-operation between the school and the home: The image lower class mothers seem to hold of the school — and which they generally communicate to their children — is essentially one of the school being a distant institution with which they have very little interaction and over which they exercise very little control. To influence optimally the socialization of the child, the harmful clash between the home milieu and the school milieu has to be reduced. Parents must be involved more in what is happening in the school. Activities in the home that will introduce the children to and prepare them for socialisation at school must be encouraged.

The new programme in the school itself is directed principally towards five fields:

— experience: because of its importance for cognitive development, the goal here is principally that of improved differentiation of sensory perception.

— reasoning: we do not limit ourselves here to strict logical reasoning (convergent thinking) but also include other forms of cognition, such as divergent thinking.

— concrete behaviour: teaching of basic techniques, development of body control, psychomotor development.

— language: learning to speak and listen in the classroom, development of the basic grammatical structures, development of a usable vocabulary.

— social relations and personality: attention is given both to the relationship between the teacher and the pupils and to the relations among the children themselves (formation of co-operative groups, etc . . .)

In the school: All kindergarten teachers involved in the activation programme followed a one-month period of training. The activation programme is conducted in the classroom by our specialized kindergarten teachers working together with the regular teacher. As the programme progresses, the regular teacher takes over more and more of the activities. The programme is meant for five-year-old children and lasts the whole school year. A psychologist supervises the work.

In the home: Visits are made to the homes to encourage the parents to become involved in the school activities, and, if at all possible, to assist the teacher in any way they can in the school itself.

The action concerns eight classes, six of which are experimental classes, and two control classes. The eight classes were randomly selected from a list of all the kindergarten classes in the Ghent municipal education system, the majority of which are attended by children from the lower social classes. The programme is administered to six classes, in the case of two of which there is a parallel home activation programme.

EVALUATION

The evaluation of our programme is two-fold. On the one hand, there is the pre-test and post-test evaluation, and on the other hand there is the internal evaluation.

The pre-test and post-test evaluation makes it possible to assess the effect of the programme in relation to the aims that were set.

The problems we are faced with in this kind of evaluation result from the broadening of the aims which entails using a broader range of evaluation criteria than before.

Having found that adaptions of tests devised abroad did not meet our needs, we were compelled to construct our own instruments, namely:
Personality test: This test comprises the following sections:

— Hierarchy of values: attempts to discover the primary values of the subject (for example: does the child prefer to be strong or clever?)

— Emotional perception: which emotions does the child associate with:

- social situations
- anxious situations?

In this way we can attempt to evaluate the child's emotional experience of reality.

— Selfperception: which social position does the child unconsciously prefer? For example, does the child see itself as being active, passive, sociable?

The test is administered to groups of six children. Test of grammatical comprehension: The intention of this test is to discover the level of verbal expression the child is able to understand. The subject demonstrates his knowledge of specific grammatical structures by selecting the appropriate picture from a series of four. For example, the sentence.

"The dog is being chased by the cat" is used with a series of four pictures depicting (a) a dog chasing a cat, (b) a cat chasing dog, (c) a dog alone, and (d) a cat alone. The range of grammatical structures and transformations tested is very extensive. A scale to assess the social development of the pre-school child was also prepared, and we also included:

— a Flemish adaption of Thurstone's Primary Mental Ability Scale;

— a shortened version of the Frostig test;

— reading and arithmetic readiness tests.

We prepared a number of tests for the internal evaluation which is conducted whilst the programme is being implemented. The activities of the programme were grouped into units lasting approximately one week. Evaluation of the specific aims of a particular unit of the programme occurs in the week following that in which the unit is implemented. The objective of this immediate evaluation is threefold:

— immediate feedback concerning the aims that were not achieved with a number of pupils;

— construction of a series of consecutive intermediate aims;

— selection of an optimal strategy for a particular aim.

We hope that this study will be of help as regards the composition of curricula, and in particular that it will help in the search for a more adequate education for socially disadvantaged and educationally deprived children. During the last decade many new programmes for socially deprived children were devised, but very little rigorous evaluation of these programmes was carried out. Because of this, little can be said about the real value or effects of a particular programme.

We believe that it is only by means of carefully designed experimental programmes, built on various hypotheses, that relevant information as regards the problem of social deprivation can be found (1).

(1) The team consisted of A. De Meyer, A. Doom, R. Doom, P. Van Geert, L. Heyerick, L. Van De Vyver, L. Van Eeckel, N. Potty, M. Vermassen, M. Vermeir.

The Liège University research project

THE LIÈGE TEAM'S APPROACH (1)

The Laboratoire de Pédagogie expérimentale of the University of Liège is particularly concerned with establishing the optimum conditions for cognitive development with a view to compensating for the socio-cultural handicaps of schoolchildren. The children under investigation are, for the most part, Belgian. The range covered extends from the new pre-kindergarten class, which caters for children aged 2 1/2 or even 2 years, to the first year of primary school, where basic learning is continuously evaluated and adjusted.

The research involves constant alternation between evaluation and action. Evaluation is consecutive and recurrent and is concerned with diagnosis, intervention and results. It serves the dual purpose of enabling educational methods to be adjusted, often empirically, and the causes of phenomena, or at any rate their inter-relationships, to be detected.

As we are concerned with how a child is influenced by his environment, it may be thought that we should have conducted our investigations in the family as well as in the school. For various reasons, however, we have concentrated primarily on the school environment:

— We consider it easier to involve parents in the running of new institutions than that of existing nursery schools, where they were for a long time intruders. Furthermore, we doubt whether existing parental attitudes can be radically changed and prefer to devote our efforts to the education of parents of the future.

— The very high rate of school attendance in our country means that almost all young children can be reached at the nursery-school stage.

— More than one child in three spends more time at school than at home and suffers from socio-cultural disadvantages.

(1) Professor G. De Landsheere, A. M. Thirion, M. Detheux-Jehin, L. Leclercq-Boxus, M. T. Loret, J. Paquay-Beckers, G. Manni, M. L. Willems-Carels.

— Dealing as she does with hundreds of children throughout her career, a nursery school teacher is a key factor in the democratisation of education.

DEVELOPMENT OF THE APPROACH TO DIAGNOSIS

Not wishing to base our work on conclusions reached with highly dissimilar population groups, we carried out initially a diagnostic study that was free from all prior assumptions and hence of an extensive kind. This study consisted of:

— a sociological description of the entire child population attending nursery schools in Liège;

— differential studies of representative samples, relating to the development of the skills, knowledge, language, operations and behaviour of children at school;

— studies based on direct observation of children in their families and in the classroom (2)

We established beyond all doubt a link (though this was not yet an explanation) between development and social origins.

General results

— Two general features were found to distinguish the handicapped group from the average and privileged groups, viz the inferiority of performance of the group as a whole and the lack of uniformity among the performances of its individual members. These results allow of a number of interpretations, even — perhaps especially — in the context of Piaget's structuralist theory (3).

— Another observation derived from the influence which the situations presented to a child had on his types of production. Thus, factors such as the content and form of testing and the number of pictures in verbal tests were found to lead to differences in syntactical construction that were independent of a child's social background (4).

— Lastly, various features not explicity perceptible with the tests used emerged during our contacts with the children (lack of inhibition, lack of time-use organisation, and absence of any real communication with adults).

These findings, reached during the second and third years, led us to advance progressively from a descriptive diagnosis to a functional, comprehensive and no longer just extensive analysis of development and of the differences observed. To achieve this objective, two methods were used simultaneously:

— analysis of the constraints inherent in the situations selected for the linguistic and operational tests, and adjustment of these instruments so that they would be capable of revealing a structure and various stages in its formation (prerequisite);

— elaboration of a psychological ethology capable of detecting a child's interactions with his school environment in everyday life.

The pedagogical value of this approach seems obvious for only by identifying the constraints which foster certain types of production in children can the most relevant educational measures be determined.

DEVELOPMENT OF THE APPROACH TO INTERVENTION

Formation of experimental and control groups

Parallel to diagnostic evaluation, a project was carried out in a school chosen in the light of a sociological study, the reason for the choice being the school's high concentration of socially underprivileged children, for the most part Belgian. Control groups were formed of children chosen at random from the general population but matched from the following points of view: age, sex, background, family composition, educational level and level of cognitive development.

First stage: a general study

For the first two years, we carried out a general study. We wanted to work in a school in an under-

(2) Willems-Carels M. L.: *Étude comparative des comportements maternels envers des enfants de 4-5 ans appartenant à des niveaux socio-économiques contrastés. Essai d'élaboration d'une méthode d'analyse.* Université de Liège, Institut de Psychologie et des Sciences de l'Éducation, 1969-70, (unpublished).

(3) See Paquay-Beckers, J. and Thirion, A. M.: *Étude différentielle du développement opératoire.*

(4) Detheux-Jehin, M. and Manni, G.: *Étude différentielle, développement psycholinguistique.*

privileged district in the conditions that normally existed there and with the regular teachers. "A joint project where competence takes precedence over seniority and where everyone is aware of his limitations" is a culminating point (5). It would be useful to develop further the group dynamics which made it to some extent possible to transcend relationships based on authority, judgment and insecurity, and arrive at harmonious co-operation between teachers and researchers.

We soon went beyond the narrow limits of a traditional research project. The teachers had to be made aware of the goals of their teaching and encouraged to hold an informative discussion of real-life problems and, through an understanding thereof, improve their work.

In the early stages, we drew heavily on C. Kamii's programme, which fits in well with our educational traditions and provides solutions regarding methodology, curriculum development and evaluation (6).

A comparison with the criterion tests (operational and verbal tests) revealed significantly greater progress by the experimental group. This positive result was, however, limited, as progress was more marked in the case of the privileged and average groups than in the case of the handicapped group. Similarly, a follow-up study of children completing the first year showed that results in the criterion tests (operational and linguistic tests, attainment tests in reading and mathematics) were virtually all inferior in the experimental group.

Conclusions of the first stage of the project

We discovered that the main drawback of compensatory curricula was the specific nature and brevity of their effects. The nursery-school stage is undoubtedly the best time to introduce compensatory education, but it is imperative that such education be kept up during subsequent schooling.

The whole significance of a project and its development cannot be judged by an extrinsic assessment, ie solely by the measurement of its effects (comparison of the pre-test and post-test performances of parallel groups). The reckoning-up of successes or failures is not essential for the purpose of deciding whether to introduce a curriculum on a general scale. What matters is what happens between a pre-test and a post-test study, ie the actual process of change. We are increasingly giving our investigations this dynamic approach, which makes it possible to overcome the conflict between the need for flexibility at the action stage and the need for control at the evaluation stage.

Second stage: an analytical study

During the third year, we focused our efforts on three problems regarded as crucial in the light of our sociological enquiry and the results obtained during the first two years:

— an ethological study of the interactions of children aged 2-3 years and their school environment;

— the elaboration of a curriculum and the evaluation thereof at the different levels of nursery schooling;

— the continuation of compensatory education during the first year, for the learning of mathematics and reading.

In spite of the variety of the problems dealt with, the methodology gained in coherence. The human ethology initiated with the smallest children was carried on through the use of operational learning and formative evaluation.

Our conception of compensatory education thus becomes more and more akin to that of mastery learning, in the sense of a set of strategies enabling the educational process to be optimised. That is why the terminology traditionally used in the field concering us is felt to be inappropriate; the words "diagnosis", "handicap" and "compensation" conjure up the idea of educational maladjustment.

1. Ethological study of the interactions of children aged 2-3 years with their educational environment

At the outset, a method based on ethological theory — direct observation giving a detailed picture of a specific individual's behaviour in relation to the stimuli acting on him — was needed for a study of children aged 2-3 years in a school environment.

One reason for this was the children's age and their level of development, as most of the communica-

(5) De Landsheere, G.: *Introduction à la recherche pédagogique*. Paris, A. Colin-Bourrelier; Liège, Thone, 1970, 3rd édition.

(6) Kamii, C.: "Evaluation of learning in preschool education". In B. S. Bloom, J. T. Hastings, G. Madaus (eds.): *Handbook of formative and summative evaluation of student learning*. New York, McGraw Hill, 1971.

tion among such children is non-verbal and, to quote Tinbergen (7), ethological methods offer "considerable potential for the study of non-verbal forms of communication in general". Secondly, the psychological data available on such children are limited. All we have are hypotheses on the stages of their development and the nature of the processes involved. The sociability of small children is still a moot point.

Here, too, the ethological approach seemed necessary, as it compels the researcher to get down to the reality of the classroom and collect facts together with their environmental correlates. This latter point is particularly important from an educational point of view. For although a psychologist may be at a loss when faced with a child of 2-3 years of age, a teacher is obliged to take charge of a class of 20 children with only one weapon, his common sense, as his training will not have prepared him in the least for this kind of task.

So far our work has been carried out in two stages. During the first year we developed a method of observation in the pre-kindergarten class of our experimental school. Our observation of 20 children in seven different situations resulted in various conclusions. After coding, various analyses of the data were attempted:

— analysis of the distribution of forms of behaviour (manual, gestural, corporal, locomotor, facial and vocal);

— analysis of person-oriented behaviour;

— analysis of object-oriented behaviour ("manipulation" level according to a study by M. Stamback (8));

— study of the latent structure of the class;

— study of individual differences.

Next, our observations were extended to 175 children in the thirteen pre-kindergarten classes in Liège. An analysis of the results — which is still in progress — will lead to the drawing up of a general picture of activities and child-child, child-teacher and child-object relations in this type of institution. Only then will the real ethological approach commence. The mass of data collected as well as contact with classroom realities give rise to numerous hypotheses which will have to be studied in greater detail, as pointed out by H. Montagner (9):

"In spite of the development of new social structures, such as day nurseries and child-minding centres, 'exchanges' between children aged between two and four have not been studied in any detail. It is not known exactly how an exchange is established, how an object is called for, etc. It may be wondered whether a child lacking an adequate verbal repertoire attracts another's attention or calls for an object by general gesturing or by variable and non-structured vocalisations. Might there not be as well, or instead, as in the case of animals, various sequences of postures, gestures, mimings and vocalisations serving as signals (neutralised acts) when two children meet and establish contact?"

We believe that answers to these questions would provide teachers with some behavioural references for understanding relations between children, planning their approach to their task and objectively assessing the results.

2. Elaboration of a curriculum and evaluation thereof at pre-school level

Theoretical framework

Our objectives were:

- to modify the teacher's behaviour;
- to provide her with a repertoire of educational strategies suited to the children's special needs;
- to define the curriculum's objectives in terms of two factors: content (social, physical, spatio-temporal and logico-mathematical knowledge) and mental processes (reinforcement of the processes of anticipation and action control).

The general hypotheses relating to the qualities of a "good partner" environment formed the theoretical framework of our approach (10):

— range and variability of opportunities for manipulation and experimentation (more important than the quantity of stimuli);

(7) Tinbergen, E. A., Tinbergen, N.: *Early childhood autism. An ethological approach*, Berlin and Hamburg, Paul Parey, 1972.

(8) Inhelder, B., Sinclair, H. and Stamback, M.: *Les débuts de la fonction sémiotique*. Travaux du CRESAS, 1972, p. 6.

(9) Montagner, H.: *Communications non verbales et stimulations spécifiques chez les jeunes enfants à la crèche. Approche éthologique*, (unpublished article).

(10) Reuchlin, M.: *Les facteurs socio-économiques du développement cognitif*. Paris, PUF, 1972.

— repetition allowing of a wide variety of isomorphic, structured and predictable situations, encouraging the transition from configurations to transformations as well as spatial and temporal distances.

Organisation and method

— Translation of the general lines of the curriculum into forms of behaviour. Each week activities were planned with the teacher. These activities were translated into behavioural units defined in terms of content and procedures. Special emphasis was placed on types of action control. Feedback was intended to be as physical as possible, in related to objects (concrete approbation). In the case of social feedback, discussion with peers was accorded more importance than adult approbation.

— Exhaustive recording of activities and observation of the two persons responsible once a week.

Evaluation

— Summative evaluation, operational and verbal testing, questionnaire on classroom attitudes. Results were compared with those obtained by children in the third kindergarten year in previous years.

— Formative evaluation: a number of behavioural units were chosen at each session to assess the children individually and, in the light thereof, provide optimum conditions for further learning.

Results

These are undeniably positive:

— Significant progress was recorded in the six criterion tests (substance; number order; dichotomy; seriation; construction and verbalisation).

— The results in the various tests were scattered at first but much more concentrated by the end of the experiment. In other words, the variability of the results of the subjects, taken individually, diminished during the learning process (this greater homogeneity is indicative of a higher operational level).

— Even more encouraging was the absence of any difference between the privileged and the underprivileged children, contrary to the results of previous years. The experiment was, therefore, beneficial to all the children, with the exception of three, who were "problem" children. This brings us to the end of an educational project and provides us with a basis for a detailed psychological study.

— The main advance on previous projects was that we were able to perceive what actually took place between the beginning (pre-test stage) and the end (post-test stage) of the experiment. This process analysis is the *sine qua non* of any general application of a project.

In addition, the follow-up study of the children finishing their first year indicates significant progress by the experimental group.

3. The project in the first year of primary education. Towards "mastery learning" teaching

Objectives

The objectives are to provide teaching conditions that will produce "mastery learning". For this purpose, the teacher needs to be aware of the optimum level of stimulation that enables each child to assimilate the new material. This in turn calls for a system of evaluation satisfying the following three conditions:

- The evaluation must be analytical. What is important is not so much to assess a child's overall performance as to detect his specific weaknesses.
- The evaluation must be related to a criterion. Each child must be judged according to the progression of the subject-matter, in relation to the criterion adopted.
- The evaluation must be continuous and take place while teaching is actually in progress.

If these three conditions are respected, the evaluation will be formative, that is to say, it will be capable of determining subsequent objectives and the way in which activities should be conducted. This does not, however, eliminate the need for periodical stock-taking (summative evaluation).

It is clear that any true individualisation of education, and hence any mastery learning approach, entails a reform of evaluation procedures and that this reform must be accompanied by an effort to work out an operational definition of the objectives of education. For this reason we centred our project on these two fundamental aspects of all teaching.

Characteristics of the project

A fundamental principle. Our project was centred not directly on the children in the classroom but on the teacher. We did not want to "salvage" the children through intensive teaching conducted simultaneously with that of the teacher, for the results of this type of teaching may be positive in the case of the children concerned but they can scarcely be extrapolated to an entire country or region.

The project's points of application. We chose to work in the two basic subjects in the first year of primary school, viz reading and mathematics.

As regards reading, we considered that the main requirement was that the children should master the technique; we preferred to leave it to the teacher to adopt whichever method suited her most and gave the best results, to choose her specific objectives, and to build up her syllabus.

As regards mathematics, on the other hand, we considered the choice of a method to be directly related to the chosen objective. The characteristics of the reform both of mathematics and of the teaching of mathematics seemed to match our requirements.

The reform of mathematics seeks to establish the unity of the subject through the placing of emphasis on the main basic structures, viz sets and relationships. The reform of mathematics teaching is marked by the emphasis laid on a child's progressively building up his mathematical knowledge.

It was therefore to this modern approach to mathematics that we decided to gear our efforts. We specified the objectives at which our mathematics course for the first year of primary school might be aimed and drew up the broad outline of our syllabus.

The project's methodology

As already explained, we tried to create conditions for mastery learning by establishing a new system of continuous evaluation that was analytical and hence formative. Our working hypotheses were as follows:

— Continuous and analytical evaluation enables a teacher to detect any difficulties encountered by her/his pupils while they are learning to read or studying mathematics.

— This knowledge of her/his pupils' problems enables the teacher to adapt her teaching to the general level of the class as a whole and to the individual level of each child. This is where evaluation really plays its formative role.

— Lastly, this continual adjustment of teaching makes it possible for each pupil to achieve mastery in accordance with the chosen criterion.

The organisation of this system of evaluation consists basically of three stages:

— Periodic attainment testing in reading and mathematics. We tried to use a systematic methodology capable of producing criterion testing.

— Analysis of test results from three points of view:

- the proficiency of the class as whole in a given subject;
- the proficiency of each individual child in the same subject;
- the progression of a child's proficiency from one test to another.

— Communication of the results to the teacher and discussion of their methodological implications.

The principle of formative evaluation calls for an intrinsic measurement of the project's effects, centred on the development of the experimental group itself. It seemed a good idea to supplement this measurement with external testing involving several control groups.

Results

Individual continuous evaluation, whose results have diagnostic value and are immediately usable by the teacher, has a beneficial effect. It is especially useful as it is based on criterion testing.

For mathematics, the project did not begin until September 1972; we do not yet, therefore, have the results of comparison with the control groups. For reading, we possessed the probable learning profile of each child (PREDIC method) (11).

Prognosis allows of preventive action. Through elementary precautions it is possible to achieve results that are the opposite to the effect (automatic achievement) since the teacher is provided with the

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(11) This computer-tested method seeks to forecast a year in advance a child's most probable proficiency in learning to read.

means to confound some of the predictions. The combination of individual continuous evaluation and the PREDIC method seems to be the best proposition for the future.

In the experimental class, differences between children were minimised, whereas in other classes they became accentuated as time went by. Ordinary schooling, with its would-be egalitarian teaching methods, results in grave inequalities at the end of the process.

CONCLUSIONS

In order to go beyond the cumulative data obtained with conventional methods, socio-cultural differences should be dynamically approached in two ways:

- ethological observation of young children's interactions with their school environment;
- development of genetic testing and criterion referenced testing.

Compensatory education should be regarded not as re-education but as an integral aspect of basic education.

Teachers in nursery and primary schools are the key instruments of this education.

Compensatory education seems to us to be less and less a question of an adjustment between diagnosis and treatment and more and more a question of an actual transformation of teaching.

The Mons University research project

AIMS OF THE RESEARCH AND ACTION

The main aims of the programme have been to ascertain the social obstacles in the way of effective education and the educational methods which, after objective evaluation, prove the most efficacious. The methods used have been specially devised for all socially underprivileged children of the region concerned between three and seven years of age in particular for children of foreign parentage.

We have focused our investigations on four areas:

— The family unit: in order to study the variables relative to the concept of deprivation and their impact on the development of the child, and to produce an educational programme for the parents in both language and ways of educating their children.

— The school: in order to create a fresh approach to children's first contacts with school, and to improve teaching methods and adapt them to the children's capabilities.

— The community: to co-ordinate the educational activities of both school and family with a view to facilitating the integration of the child into school and society.

— The children themselves: to gauge their level of development, and utilise those educational techniques that best help them to integrate in school and society.

THE EXTENT OF SOCIAL DEPRIVATION

It is extremely difficult to pinpoint what constitutes social deprivation, but it is nevertheless essential to isolate the main handicaps: the parents' low educational level — approximately that of uncompleted primary schooling; the lack of cultural stimulus and the wherewithal to provide it in the home; the parents' uninspiring occupations and meagre resources; the lack of interest shown by parents in the child and his or her school and widespread general apathy.

Living conditions, however, which frequently constitute a severe handicap for the underprivileged, are adequate in the area under study. Since 1960, the local authorities have made a special effort to house workers comfortably.

THE ACTION PROGRAMME

The programme, which has been in force since October 1969, has consisted of three phases lasting a year each. Each phase has entailed:

The formation of two groups of children between the ages of three and six years, one an experimental group and the other a control group, in order to ascertain relative deprivation, verbal and non-verbal IQs and the results of a test of verbal fluency.

Pre-testing all the children and applying a compensatory programme to the experimental group.

Post-testing the same children, analysing the findings and comparing the performances of the experimental group and the control group which had received no special treatment.

First Phase 1969-70

The programme was applied to the children in school as well as to the parents.

Intervention in the school

This was carried out by a pre-school teacher and two educational psychologists. The children were divided into small groups and took part in five sessions a week of compensatory stimulating and enrichment activities.

We have compiled case-files for each child comprising all the teachers' comments. These concern the child's behaviour, his psychomotor ability, his intellectual development and the success of the educational activities.

The activities, mentioned above, were chosen according to the level of development reached by each child, and so constituted an individualised programme.

Educating the parents

The programme had a double aim: to create a climate of understanding between parents, children and school; and to create permanent, practical cooperation between school and family. Among the various means of keeping parents informed about the programme, the three which follow proved the most effective:

— Parents' meetings and open classes:

The parents learn about educational methods through their application to their own children. We make films of the children's classroom activities and show them to the parents with commentaries by the teachers. These films have the additional benefit of helping the teachers themselves to improve their technique, which is equally important, for the team's job is to educate the educator, whether he or she be parent or teacher.

— Home education in an underprivileged community:

For the majority of immigrants' children, the problem of language learning is a fundamental one. Through the school we lend each child comic strips and picture books, and ask those parents who can do so to read their children a short story every evening. There are, however, numerous adults who are not up to even this simple task. In two cases parents who were aware of their deficiencies came and asked us to teach them to read French. We did so, but we did not have the time to organise courses for a large number of adults. However, we made some headway in solving this problem through the generosity of a number of young Belgians in their last year at school, who visited the homes of families wanting help with their French — a solution which produced a spirit of service and solidarity within the community.

— Family consultations:

Our first attempts at offering advice on educational problems were only partially successful. Parents in need of it could ask an individual member of the team to come around for a private talk, but it needed several months "warming up" before this service really got off the ground. The psychological problems that cropped up in the course of these consultations concerned not only the children's development but also difficulties encountered by the parents and the family as a whole. The team's task was to listen to the parents and give them all the information they could that was relevant to the specific problems they raised.

It was not, of course, possible to deal with problems outside our particular sphere, such as difficulty in getting family allowances or finding more spacious accommodation, and in such cases we put the parents in touch with the proper official organisations. We did, however, succeed in breaking through the barrier of social and cultural isolation that affects nearly all the immigrants — often to an acute degree.

Evaluation of the first phase

In education there are many areas that still defy a rigorously scientific evaluation. However, a first attempt at an objective appraisal of the short-term results of our activities was made with help of Terman-Merrill and Maistriaux intelligence tests.

In four months the average IQ of the children rose from 100.83 to 110.43. This rise of 9.6 points is

significant at the P.OI level. The control group registered no progress. In the verbal fluency test (describing pictures) progress was considerable for the experimental group (Significant at the P.OI level). No progress was registered by the control group.

If we take into consideration the variable of the chronological age of the children, it would appear that in the IQ test most progress is made between the ages of 3 and 4. The non-verbal reasoning test (Maistriaux) showed a distinct advance between the ages of five and six, whereas four is the crucial age in verbal expression.

A second evaluation made after a two-month holiday period showed that progress by the experimental group had slowed down considerably, whilst the control group made distinct progress over the same period. Freed from the constraints of school, these children increased their rate of progress between two and five fold. This raises a question worth considering: is the traditional type of nursery school less stimulating than the games children play at home during the holidays? We might even go as far as to query whether the school atmosphere has not an inhibiting effect on the ability of disadvantaged children to realise their cognitive potential. If our findings are confirmed, we should set about the task of modifying, adapting and improving the present school system provided for disadvantaged children.

In other respects, our results show that the preschool is capable of helping children towards a better realisation of their potentialities provided that the methods employed adequately serve the defined objectives.

Second phase 1970-71

School based action

The impact of remedial education in school (phase 1) is irrefutably positive. An enrichment programme, carried out in good educational conditions, does help disadvantaged children to realise their true potential. We want to know, however, whether the margin of educability between initial and final performances elicited respectively by the pre- and post-tests, was really as wide as it could be. Might there not be other types of educational intervention that would result in even more positive results? These two questions were studied in a new experimental scheme. Three findings emerged from the tests we carried out in 1970-71:

— Any compensatory intervention improves the performance of disadvantaged children measured by traditional tests.

— Progress is greater when intervention extends to the home and the parents actively help to educate their children.

— The class teacher's commitment and competence have a marked effect on the child's progress.

Intervention in the home

The first part of the study of families with contrasting backgrounds (17 privileged and 17 underprivileged families in the same city) revealed that their educational characteristics diverge with regard to the following variables:

— the standard of the child's material and cultural environment;
— the parents' readiness and ability to help their child;
— the interest shown by the parents in their child's performance at school;
— the level of the parents' aspirations for their child;
— the impact of parental authority and of the level of harmony and of concertation in educational matters among the parents.

Only disadvantaged families took part in the action programme. One hundred and two interventions of between an hour's and an hour-and-a-half's duration permitted us to tackle the following educational matters with the parents: the child's language development, socio-cultural relationships, psychomotor activities, different types of creative activity and development of cognitive ability. The parents played an active part in developing the programme by exploring different ways of helping the child to learn.

Educational assistance at home resulted in improvements in:

— the standard of the child's material and cultural environment (the creation of a family library, opportunities made for the child to play with water, sand, earth, etc);
— the parents' readiness and ability to help their child (by reading and telling stories to the child);
— the interest shown by the parents in their children's performance at school (appreciation of the value of the work produced by the child in school).

It should be mentioned at this point that, when any action or activity was suggested to the parents, their first reaction was "How do we do it?" not "Why?". They still, for the most part, rely on the team, though our aim is to make them think and act for themselves.

Third phase: 1971-72

School based action

All schools attended by the immigrants' children have been regularly visited by a peripatetic teacher, specially trained in remedial education, who has given individual help to the form teachers.

Intervention in the home

The importance of the linguistic relationship between parent and child has proved to be considerable for it seems to have the strongest possible influence on the level of the child's active vocabulary.

During this phase, a language enrichment programme has been initiated. This was produced to teach the parents and the older children how to read educational picture and story books to the younger ones. The impact of this programme is gauged through observation of the children's verbal-reasoning development.

Our object is to improve the quality of verbal communication between parent and child through the description of pictures, but we have to bear in mind that communication can only be improved if the parents — particularly the mothers — come to feel a real need to communicate. It is therefore essential to work out with the parents educational situations which require verbal communication.

We have produced a number of educational pamphlets in order to give concrete form in words and pictures to the information emerging from our discussions with the parents. This is an important activity, because it provides parents with tangible results of their own contribution to the programme.

In 1971-72, our educational activities have thus developed in three directions:

— enrichment of the parents' and the children's language;

— concentration on educational situations that promote real, natural communication between parents and their children;

— progressive introduction into the family of models for parents to follow in their daily reading of picture and story books to the children.

We are still in the process of analysing the results of the experiment, so it would be premature to draw firm conclusions at this stage. We can say, however, that in most cases the impact of this approach is clearly apparent, particularly in the development of the children's mode of expression and of their vocabulary. As for the parents, no significant linguistic progress had been discerned statistically at the end of this first period of stimulation, but the attempt is worth making again in an amplified form, for they are educable, and the social and effective repercussions appear promising.

Fourth phase: 1972-73

School based action

With specific objectives in mind, the learning situation was analysed as regards goals, content and methods of implementing structured activities. These specific objectives, seven in number, define a series of basic concepts in the following fields:

— language and the use of symbols;
— logical/mathematical relationships;
— spatial and/or temporal orientation;
— memory;
— psychomotor performance;
— perception;
— learning to read.

A more formal and structured approach was thus introduced into the curriculum by means of a programme devised to develop special attitudes. Evaluation of the gains made to which the programme gives rise is at two levels:

— summative evaluation with the help of classic tests (Leiter, WPPSI, Boehm, test of maturity, Inizan tests);

— formative evaluation which is being elaborated and which is closely tied to the goals of the programme (proficiency tests).

As for teaching methods, the programme provides an opportunity to apply the mutual teaching technique. Primary school pupils aged between 9 and 12

years and coming from underprivileged backgrounds took part in the experiment. These pupils were trained as monitors and then applied the programme individually amongst the three-to-four-year olds. This technique modified the pupil-teacher relationship and resulted in the staff and the pupils attached to the school taking over responsibility for the programme.

This procedure, moreover, allows pupils who have profited from the experiment in the nursery school to renew contact with our work. The underprivileged are no longer left to their own devices once they enter the primary school, and it can be hoped that the gains made at an early age (nursery school) will be maintained through continuous support. Concurrently a second programme was applied in the nursery school. The activities, which were freer and more formal, took into account the interests and wishes of the underprivileged children. This rounded off the programme of activities on specific objectives.

Intervention in the home

A programme aimed at giving the four to six-year old mastery of basic concepts was also implemented in the home. The parents carried out with their child specially designed educational activities. By means of closed circuit television, the learning process was recorded. The analytical study of observed behaviour allowed the educational pattern of the families to be defined. At a second stage training sessions were organised. They aimed at producing specific educational behaviour patterns amongst the parents.

We were interested in three hypotheses:

— The quality and the nature of the induced educational behaviour differentiate the educational practices of the mothers according to their socio-economic and cultural level.

— The quality of the structural elements of the mother's personality has a marked influence on how well the educational directives are applied.

— Reproduction by the mothers of proposed educational behaviour raises the quality and quantity of initially observed behaviour.

Fifth phase: 1973-74

During this last phase the work started in 1972-73 will be continued as will the analysis of the results.

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Action-research on educational priority areas (EPA) in the United Kingdom

by A. H. HALSEY,
University of Oxford.

The EPA Action-Research Project, which was set up in 1968 with a three-year joint grant of £ 175,000 from the Department of Education and Science and Social Science Research Council, ended in December 1971, although several of the programmes it initiated are being continued in various forms. Its aim was to find and evaluate practical means of implementing in the primary and pre-school the recommendation of the Plowden Report (1) that a policy of "positive discrimination" be adopted towards the education of children in poor districts. In particular, it carried out work in six major areas:

— communication between the home and the school,

— compensatory teaching, especially in reading and language work,

— teaching materials and curricula relevant to the experience of EPA children,

— pre-school provision which both developed cognitive skills and involved parents as teachers,

— the establishment of EPA teaching as a specialised and prestigious branch of the profession, both through EPA options in colleges of education and in-service courses, and

— the synthesis of several of these ideas in the development of the community school.

Four districts in England took part, together encompassing nearly fifty schools, and a sister project was sponsored in Dundee which will publish its findings separately. Three of the English projects were located in the inner rings of large towns — Deptford, Birmingham and Liverpool — while the fourth area comprised two small, adjacent mining towns in the West Riding of Yorkshire. Each area had a small action and a small research team, though in practice their functions were often united. The four projects were co-ordinated at Oxford University, but each had a considerable degree of autonomy. The main report of the project containing recommendations for government policy towards EPA's was published by HMSO (2) in 1972.

In the first year of the project the research teams carried out a standardised programme of base-line data collection. The 1966 10% Sample Census and the schools' own records were used, and in addition three surveys were carried out. These were:

— survey of all teachers in the project schools via a postal questionnaire, which obtained information on career histories, attitudes towards various aspects of teaching, and job satisfaction;

— home interviews with a random sample of eight hundred mothers of children in the project schools investigating home background, contacts with the schools and attitudes towards them, and

— survey of the ability and attainment of all children in the schools using the English Picture Vocabulary Test (EPVT), the National Foundation for Educational Research's Reading Test Streaming Research A (SRA), and the Bristol Achievement Tests (BAT).

The base-line data showed a marked contrast between the mining towns with their stable and ethnically homogeneous populations and the inner ring areas which had transient inhabitants, concentrations of Commonwealth immigrants, and suffered from severe housing stress manifested in multi-occupation and overcrowding. In all the areas there was much poverty, with up to 28% of the children receiving free meals. Redevelopment programmes brought further problems for the inner ring schools: some had almost half as many pupils again as they had five years previously, and pupil turnover varied between 25% and 37% of the school roll in one year. Absenteeism was high, and the teaching staff of the inner ring schools was on the whole young, inexperienced and highly mobile.

(1) Department of Education and Science: *Children and their primary Schools*. A report of the Central Advisory Council for Education (England). London, HMSO, 1967, 2 vol.

(2) Halsey, A. H. (Ed.): *Educational Priority, Vol. I: EPA Problems and Policies. London, HMSO*, 1972, p. 209.

This factor was strikingly different in the mining towns, where half of the teachers had stayed over five years in the same school. Comparisons made by the EPA teachers between their situation and that of teachers in other schools were overwhelmingly unfavourable in all respects except the worthwhileness of the work and general satisfaction.

Results of the tests

The results of the ability and attainment tests were disconcertingly poor. In the junior schools mean scores of non-immigrant children on the EPVT were in the best project area one-third of a standard deviation below the national mean and in the worst, one whole standard deviation below. Functional non-readers formed at least a quarter of the non-immigrant junior school population. Scores of immigrant children were consistently lower and suggested huge language difficulties, particularly among Asian children. There was evidence of a progressive decline in scores throughout the primary school which was offset at two points, the first in the year following entry to primary school, and the second in the year preceding tranfer to secondary school.

The survey of mothers indicated relatively sparse contacts between parents and school, and despite the low attainment scores a surprisingly high degree of satisfaction with the education their children were receiving.

The project teams' programmes depended on the co-operation of heads and teachers and on local circumstances. Thus, for example, in the West Riding long-term follow-up studies were mounted which would not have been feasible in districts with high pupil turnover. Many programmes were formally evaluated using before-and-after designs, but action was not confined to fields where goals were measurable within the three-year life of the project, and in Liverpool, where the team saw the aim of EPA education to be to produce children who were critically aware of their environment, little formal evaluation was attempted. In the project as a whole, evaluation revealed considerable success and some failure, though where failure was apparent it could generally be traced to an inadequate articulation of goals and of the relationship between goals and tactics.

Standards in EPA's

The Birmingham project had three main lines of action. The first was a literacy drive, both through the saturation of two schools with modern teaching aids and through the careful diagnosis and treatment of a smaller group of backward children who also had behavioural problems. Test scores showed considerable gains among children in both programmes. The second was towards a better understanding by the schools of problems in the children's home circumstances. Two "home-school liaison teachers", now employed permanently by the local authority, working partly as teachers and partly as social workers, used the school base to identify children in need. Thirdly, at pre-school level, two programmes were run as part of a co-ordinated experiment in which two other areas also participated. An American scheme led to small gains in oral language over a control group, but there was some evidence that Hawthorne effects were operating. However, a second programme aimed at the development of the concept of number conservation was highly successful, and a comparison in Liverpool between groups of children attending pre-school and a group which did not, suggested that, regardless of curriculum, pre-school had a beneficial effect on language development.

The West Riding project also did much work in the pre-school sphere, setting up groups in an area where previously there had been no provision at all and developing programmes to facilitate adaptation to and improve attainment in infant school. These included an individual language programme, the gains from which are still being maintained in the second year of primary school and the groups will be followed up further, a playgroup in which mothers are encouraged to work with their children, and a home visiting programme for children below pre-school age, in which educational materials are taken into the home and mothers are shown how to help their children to master them. First test results from this group of children show significant IQ gains over a matched control group. In the primary schools a phonic reading scheme introduced to the worst readers in the 9+ group led to a significant improvement in reading ability over a matched control group. The West Riding team also set up, with the support of the Local Education Authority and the Rowntree Trust, a community centre whose premises and equipment are regularly used as an additional resource by local schools, which provides space for a pre-school playgroup, and a variety of other community services, including evening courses for adults.

In Liverpool the main emphasis was on the develvelopment of an education which was relevant to the needs and experience of EPA children. A variety of experiments were mounted involving curriculum development and links with parents and the wider community, through inviting mothers into the classroom, exhibitions in shops and pubs, pro-

fessionally produced newsletters and many other schemes. These culminated in the establishment of the organisation *Priority*, whose aim is to develop and disseminate these schemes among EPA schools nationally. Links with the many colleges of education in the Liverpool area were established, with students working in the schools on a regular day each week. A Workers' Educational Association tutor-organiser was appointed to work with the project in setting up courses of direct relevance to parents, and private finance was obtained for a pre-school organiser to co-ordinate and support the work of playgroups in the area.

In Deptford a social worker was appointed to help children who were showing in the schools symptoms of severe problems at home. An experiment in environmental studies involved taking children one day a week to a centre in the country, and an oral language programme concentrated the attention of teachers on problems in this sphere.

In general, it has emerged from the programme that educational standards in EPA's can be raised by modest pump-priming resources and imaginative use of them. Pre-schooling is an economical and effective point of entry and the Plowden idea of the community school is now seen to have much greater potential in linking schools to their users — parents, teachers, employers, officials, social workers and workers as well as children.

But finally, the necessity of basing policy on accurate local diagnosis through the techniques of social science must be stressed.

LECTURES

Handicapped or different? Concepts, problems and remedies

by W. DE COSTER,
University of Ghent.

Introduction

This report is designed neither to present the results of research nor to assess the work of our team, but merely to introduce the problem.

We must first define what we mean by "socio-cultural handicaps". Most compensatory or stimulation strategies and research into socio-cultural handicaps concentrate on seeking a solution to the problems of children from socio-culturally and economically "impoverished" milieux — the poor and the marginal groups — and dealing with the backwardness and peculiarities of these children and the difficulties they encounter. The lack of success at school of socially handicapped children, together with other symptoms, is a clear indication that such milieux are not conducive either to the full development of intelligence and personality or to dynamic integration in a society which should be capable of enhancing and stimulating the development of all its members, whilst ensuring their mental equilibrium.

We have already given a fairly general definition of the problem (attaching importance to the personality as a whole and not merely to intellectual factors or to immediate scholastic and economic results), but it should be pointed out that socio-cultural handicaps in fact affect much larger and more varied sections of the population and involve a far wider range of phenomena. It is not only the lower socio-economic and cultural sectors of the population which suffer from lack of stimulation and negative influences. Children from well-to-do or intellectual families and those belonging to families with a very high social or cultural standing may also suffer from serious socio-cultural handicaps. It is a well-known fact that the families of wealthy businessmen, with no cultural leanings, often do not provide a very stimulating background for children. Then again families with a high social standing, or busy intellectuals may rarely have the time or the occasion to provide the necessary stimulating atmosphere for their children. It is self-evident that the situation in which parents through their all-absorbing social activities have no energy left to take an interest in their children education, is often harmful.

Both lack of interest in and of affection for the child, just as an over-protective attitude, constitute sources of socio-cultural handicap, more particularly for the development of personality but

also, both directly and indirectly, for cognitive evolution. It has been generally observed that a home where parents are interested and involved in their children's education, where human relations are good and encouragement is given, may have a more significant effect, in many cases, than economic, social, and even cultural standing. As a result, relatively modest backgrounds may in certain circumstances be very stimulating, particularly as regards attitudes, motivation, and the integration of the personality and thus cognitive development and intellectual, scholastic and professional attainments. At the same time, it must not be forgotten that actual poverty, generally and inevitably, engenders a variety of social, psychological and educational phenomena such as material insecurity, lack of material comfort, and congested living conditions, which lead to a type of upbringing conducive to a negative self-image, lack of faith in the possibility of betterment and an inability to see beyond immediate needs, etc. It has long been noticed that there is a very close correlation between the various different economic, social, cultural and even education factors, although there is absolutely no proof that they are directly linked by cause and effect. Moreover, it is by no means clear what is cause and what is effect, since there is frequently a process of continuous interaction, wherein the two are indistinguishable. In certain instances, moreover, the different aspects may be entirely unconnected. In any case, although poverty may be a serious cause of socio-cultural and educational handicaps, it is not directly or inevitably responsible as witness the enormous range of patterns of educational behaviour amongst children within the same social stratum. There doubtless exist various intermediate factors, many of them psychological, such as attitudes to life, levels of expectation, types of human contact, attitudes to education, etc., which can be used as starting points for changing the situation, provided that measures are taken, at the same time, to combat poverty as such. The problem in hand is complicated by the extreme diversity both of social milieu at all levels and of the corresponding psychological phenomena. It is therefore especially important to make a detailed analysis of the poverty-stricken, socio-culturally underprivileged milieu, so as to determine the nature of the economic, social, cultural and psychological factors which influence a child's development. To determine the way in which this influence works is an even more complex problem, but one which is obviously important.

Whilst it is evident that socio-cultural handicaps exist not at the lower socio-economic levels only, it is with the problems of these milieux that this symposium is mainly concerned. Extending our field to include all the socio-cultural factors which impede the full development of the personality would mean tackling all the problems of child psychology and education, and possibly failing to give children in humble circumstances the specific aid they need. This does not mean that the knowledge acquired and methods devised by modern pedagogy in general and in relation to other types of socio-cultural handicap in particular cannot be of assistance in education designed for children from poor families. Methods suitable for socially underprivileged children may prove even more effective for children from more privileged milieux. There is thus a risk of widening the developmental gulf between children of different milieux, a problem which cannot be solved simply by denying the children of well-to-do parents the benefits of more effective educational methods. The question is one that has to be posed, however. This may be partly due to the failure to attach enough importance to the specific problems of socially handicapped children. (1)

The way to solve all these questions — against the background of a general study of educational aims and strategies — is to concentrate largely on individualisation through group work, which should also make it possible to give particular attention to underprivileged children and their specific problems. Individualised, personal teaching at the same time affords the best conditions for social education based on mutual understanding. Training teachers to dispense this type of individualised and social education is one of the main tasks for an education system capable of meeting real needs.

It is thus clear, from this preliminary definition of the concept of socio-cultural handicaps, that:

a) The symptoms are not confined to intellectual and verbal development, but affect the personality as a whole.

b) The causes of handicaps are many, and the milieu is a highly complex structure, composed of a number of active factors which are not necessarily either evident or clear: apart from poverty as such, the consequences of which are obvious, attention must also be paid to the various other phenomena listed above. It must be borne in mind too, that there are several types of socio-cultural handicap even in the low-in-

(1) It is frequently observed that, when intensive educational project is organised in a school attended by children from poor homes, the character of the school changes, and the number of children from other milieux increases. Part of the problem is that underprivileged children display less interest in such experiments.

come group. The kind of handicap may vary from one situation to another, or even from one sub-group or family to another. At the same time, individual reactions to the same situation may differ greatly — some people appear naturally to overcome difficulties and handicaps of all kinds. The fact that the situation is so complex makes research difficult and the more necessary.

c) There appears to be no doubt that socio-cultural handicaps may result in deficiencies and backwardness in the development of children brought up in these milieux. There are also other types of handicap however, and behaviour patterns may evolve in the course of the development of personality and intelligence which, although inferior to those of children of other milieux, are different, and possibly dysfunctional in a particular society. In other words, experience, aptitudes and types of behaviour may differ from one social milieu and another, the same being true for expectations, attitudes, values, ways of expressing feelings, approach to human relations, self-image (negative or positive), belief in the possibility of changing one's socio-economic circumstances, escapism, etc. It is obvious incidentally, that all these characteristics are interdependent.

In short, it is clear from the outset that the problem of socio-cultural handicaps and their compensation is very complex, and cannot be solved in purely theoretical terms, although it is essential and constantly stimulating to have a clear idea of the objectives: no judicious course of action is possible without a definition and justification of aims. These objectives must then be expressed in operational terms, and carried over into a system of intermediate objectives to form a basis for strategies which will, in turn be evaluated by reference to the original objectives and situations. Obviously, the intermediate objectives (and perhaps also the basic objectives) must be defined, and strategies devised and evaluated on the basis knowledge of children and of the specific features of socio-cultural handicapped children and their milieux.

Many factors must be taken into account, some of them unknown, and almost all of them difficult to define, such as:

— the real causes of the handicap, the factors which may influence its accentuation or compensation, and also the positive characteristics of the milieu;

— aspects of the personality and cognitive behaviour which can be handicapped or stimulated, as regards either level, or quality and structure;

— techniques for observation, diagnosis and evaluation in these different domains and at these different levels.

Compensatory and stimulation strategies are difficult to devise and even to implement, especially since the personality of the teacher constitutes an important supplementary factor.

Practice alone is incapable of solving the problem. Scientific research is essential, but it must be directed constantly towards effective practical action.

Both research and action must be related to the personality as a whole, and not concentrate solely on acquired knowledge. The importance of human relations between teachers and pupils must also be borne in mind.

Observers involved in a project tend to view its results subjectively. It is more important than ever to ensure the rigorous evaluation of educational projects.

The role of the school and the problem of socio-culturally handicapped children

There have of course always been public-spirited people interested in the care of socio-culturally handicapped children, their scholastic and professional, human and social problems and their difficulties in adjusting to society and making the most of themselves, but it is only in recent years that this has been a matter of serious general concern. There is now widespread concern about the manner in which children from underprivileged milieux adapt to school, their social and economic future, the development of their aptitudes and personality, and their chances of happiness. There is a general desire to enable them to lead a life worthy of human beings.

Although these problems and phenomena are not solely — and not even mainly —related to schooling, it is noteworthy that:

— Few children from socially and economically underprivileged homes are to be found at higher education levels.

— Many of these children experience serious difficulties already in primary school. Even with an identical intelligence quotient, a child from a modest socio-cultural background has less chance of success than a child from a middle- or upper-class home, despite the fact that the IQ is already affected by the social environment.

— All tests of mental development and tests giving a reliable forecast of school achievement

indicate a clear correlation between social levels and test results.

Today these facts constitute a social problem which the schools and the established system of education in general have to face in the context of their various functions in society.

The economic function

The economy and industry of today, because they are expanding, have a great need for highly trained personnel, and full use must be made of all the skill available. The same is true in the Third World, whose development depends to a large extent on the possibility of training managerial staff at all levels, as part of an overall, co-ordinated programme. It is clearly impossible simply to import Western education as it stands: the new pattern must, to provide a satisfactory basis, and to avoid acculturation stresses, be adapted to the existing culture of the country.

The same applies to stimulation for marginal groups in our own countries.

Need for social mobility

The ideology of modern society, the needs of the economic and the dynamic, evolutive character of our society all make for social mobility, although it is not easy to achieve. Even where it is achieved, it may give rise to tensions and problems, since the fact of rising to a higher social level does not necessarily imply psychological acclimatisation. On the contrary, it often gives rise to tensions, lack of integration, and a feeling of insecurity, expressed by an attitude of defiance or extreme conformism.

The socio-educational function

As already said, the aims of modern education are both more extensive and more precise, and geared to the human dimension. As regards the development of personality, emphasis is laid on personal maturation in the sense of full self-realisation, with a minimum of unproductive tension (at both individual and social levels), together with the development of a constant awareness that "others" have the same prerogatives. As regards intellectual training, the emphasis is laid on creativity, independence and the critical faculty, while avoiding the frame of mind which cannot accept facts, situations or decisions without argument and tends to exaggerate all difficulties.

The task of education has been complicated by the growing complexity of our society, especially since equanimity is sorely tried, and families are no longer able to play their traditional role. Thus the extension of educational possibilities is matched by the emergence of new causes of socio-cultural handicaps, and even with options and improved methods existing handicaps are more difficult to offset. It should be noted, moreover, that the gulf between marginal groups and the most advanced ones is not necessarily narrowing, and integration within society presents difficult problems. Education, in an open, differentiated society with extensive opportunities for freedom, judgement and individual responsibility, is increasing in importance. It is also becoming more and more complex, since the individual is faced with increasingly serious problems and tensions, conflict situations are becoming more frequent, whilst the general relaxation of standards tends to reduce the sense of security, rather than the reverse. It is clear that all these developments make new demands on education. We must try to ensure that greater freedom is not discredited, giving rise to rootlessness and insecurity. It is important to strike a balance between authoritarianism and the absence of any generally accepted standards, and to evolve a form of education characterised by both flexibility and the understanding of others.

The scientific problem

To change and improve the situation, measures must be taken at various levels. One has to:

- Determine objectives.
- Diagnose the problem (in this case characteristics of the socially handicapping milieu, of the children growing up there, and of the school dealing with the problem). This is essential in order to detect discrepancies between reality and objectives, and plan the phases and strategies of action.
- Select the strategies for attaining the objectives.
- Assess the value of the strategies selected.

A satisfactory solution of the problem under study presupposes complicated scientific research, which gives rise to many methodological difficulties. The development of suitable research methods is only simple when the solution to the problem is known, which explains the slowness of scientific progress. This applies not only to the diagnosis of the problem, but also to the development of strategies and the evaluation of the action undertaken.

Objectives

It has already been said that all education explicitly or implicitly pursues certain objectives, which must be specified and translated into practical,

operational methods. These objectives cannot be attained immediately, but only through a series of appropriate intermediate goals, approved and controlled by reference to the final objectives.

Important scientific data exist to guide us in the determination of these final objectives, together with data for diagnosing the situation and existing possibilities, and indications on the factors which are part and parcel of full personal development without giving rise to tensions, and with due emphasis on the importance of respect for others.

Despite the importance of these scientific data, they do not at present, constitute sufficient grounds for determining and justifying the basic objectives. A certain normative and ideological option still remains. The application of science becomes far more effective when it is a matter of determining possibilities, implications and possible consequences, specifying objectives, planning phases of action and devising and evaluating strategies.

However, even diagnosis of the deficiencies or characteristics of "poor" backgrounds and socially handicapped children, just as the evaluation of results of the stimulation strategies, will not depend solely on facts but also on reference norms, which are not always fully specified.

Then again, as we have already said, objectives are determined in part by scientific knowledge. Thus a whole series of interacting factors are involved, which explains why progress towards a solution is so slow. The presence of different factors have at once a mutually stimulating and limiting effect.

Diagnosis of the problem

To improve a situation, one must first be acquainted with it. On the one hand, action cannot be postponed until the full findings of research, which must in the nature of things be particularly complicated, are available. A minute analysis of the problem is nevertheless essential.

Advanced research must be geared to action, and the fact that the data so collected are influenced by action is not, in our view, a disadvantage. Observations and diagnoses are always based on concrete situations and are thus subject to influences and explicit or implicit action. In the human sciences the knowledge of "pure" facts is often an illusion, and to observe how diagnosis evolves as a function of action is extremely instructive.

The development of socially handicapped children and the deficiences of the school and the environment cannot be efficiently diagnosed, nor can assessment scales and a system of evaluation be selected, until the problem is well on the way to solution. The same applies to the choice of strategies and methods of evaluating their results. Scientific progress is therefore inevitably slow.

The characteristics of socially handicapped children

We must begin by repeating that the problem is not in any way confined to acquired knowledge and experience, or to the intellectual, cognitive and verbal field. Cognitive development and achievement at school are, for instance, largely influenced by acquired attitudes, self-image, expectations and aspirations, the level and nature of emotional warmth, the kind of social relationships, confidence in the ability to better one's future, and so on.

A number of hypotheses have been put forward to explain the differences in mental development according to social class.

The first point to note is that backwardness observed in children from poor backgrounds is due in part to an artifact, as tests by their content and internal structure, and also because the test situation is a special and artificial one, are not conducive to permitting socially handicapped children to display their aptitudes to the best advantage. This point is relevant, but it does not suffice to account for all the problems and the differences noted.

The psychological differences between children belonging to different social strata in communities characterised by social mobility are probably due primarily to the selection of the most gifted. Thus constitutional factors would seem to play a part, and this inevitably raises special problems, both social and educational, especially as differences between social levels are bound to grow as social mobility increases. This theory may also have some truth in it, but the fact remains that at the "lower" levels of society there are still enormous potentialities which are not mobilised.

It is recognised that mental and in particular intellectual development among socio-culturally handicapped children is slower, and reach a lower level this being regarded as the effect of an environment lacking stimulation. Another point is to decide whether this handicap is reversible and if so, up to what age. Some people maintain that it is irreversible after the age of two or three years, whilst

others hope that adequate compensatory and stimulation methods may prove effective up to a later age. One point on which there is general agreement is that it becomes increasingly difficult to develop children's latent aptitudes as they grow older.

It is denied that there is backwardness in development; it is claimed that the problem is one of qualitative particularities, structural differences due to different sub-cultures existing within a cultural system dominated by the middle class. It is, we consider, indisputable that there may exist typological differences which tend to be ascribed, wrongly, to differences of social level. But here again it is important to avoid hasty generalisations: the existence of differences of level due to the lack of a stimulating socio-cultural background is undeniable. Nonetheless, education must respect and make the most of structural peculiarities, adapt itself to them and use them as a basis. This will be a means of enhancing the value of acquired experience and providing children with stimulation. But account must also be taken of the characteristics of society as a whole, and reconciling all these divergent factors may sometimes be difficult. This raises problems for education, problems which are extremely important because vital questions — such as the raising of the status of marginal groups, socio-cultural dynamics and equilibrium and, consequently, the whole system of mental and social hygiene — are at stake. A point to be borne in mind is that the socially handicapped child and environment are characterised not only by certain deficiencies but also by factors which are dysfunctional in a particular society, so that there is also a problem of acculturation.

Lastly, researchers have raised the question of the effectiveness of "compensating" characteristics which are in fact only symptoms. They point out that the real causes are to be found in more general and fundamental social phenomena including, for instance, the attitude of parents in early childhood. Whilst this is true, it should not be forgotten that symptoms and characteristics stemming from deep-set causes frequently become, in their turn, causes of backwardness. It is therefore important to eradicate those causes, as far as possible and also the symptoms, in so far as they are liable to have further consequences.

The various theories put forward to explain differences in development and success at school according to social level, call for modes of action which are just as varied. They include the following:

— An ethnocentric approach, geared whole heartedly to the assimilation of middle-class culture. This takes insufficient account of the requirements and possibilities of the milieu to which the child belongs, and loses sight of the possible acculturation problems. In addition, it automatically takes the situation of the middle classes as the general model.

— A working-class approach, rejecting the culture of the middle classes to the extent, sometimes, of rejecting education by refusing to accept any system of influence aimed at the achievement of an objective accepted by all. The drawback of this approach is that it may ultimately condemn handicapped circles to remain permanently underdeveloped.

— A synthesis which takes account of the fact that the various theories all contain a particle of truth, but that at all events aptitudes remain latent among the lower social strata. Although the constitutional basis is particularly important the operant level of aptitudes depends largely on experience (images, relationships noted, behaviour patterns, reasoning patterns, emotional associations, security level, self-image, integration, confidence in one's own possibilities, etc). It is at this level that development of the socially handicapped can be activated.

Characteristics of the socially handicapped milieu

This question is important in two respects:

— for adapting education to the children of this milieu, respecting positive elements and possible bases for action;

— for determining the basic forces which underly the handicap in the child's development, so that compensatory measures may be directed at the causes.

The fact that income level and other environmental factors have a high correlation with the mental development and scholastic success of children does not mean that they necessarily constitute the key elements. There is also a high correlation between the various aspects of the milieu, though there is certainly no direct cause and effect relation. It should be stressed once again in this context that:

— the decisive factors may have marked psychological overtones, though the direct influence of material factors should not be underestimated;

— the complexity of the phenomena impedes research, but it is essential nonetheless to undertake studies, make an analysis of the milieu and above all seek out the decisive elements;

— at present the socially handicapped milieu is far from being homogeneous, and its influence may differ greatly from one situation to another. The establishment of a typology is no doubt called for.

School and the standards of the middle class

If only because of their attitudes and behaviour patterns, socially handicapped children cannot meet the expectations of education which, in turn, does not meet the expectations of the pupils. This situation gives rise to misunderstandings, insecurity, negative relations between child and teacher, a still further reduced scholastic performance, a more and more negative self-image, etc. The problem of the school extends much further, therefore, than adjustment to the level attained in experience, reasoning ability, verbal fluency, etc. What is at stake is the whole of human relationships and one's approach to life. Contrary to traditional strategy, the school is one of the variables which must be manipulated in the context of any activation strategy.

At the level of strategies

It is obviously impossible to devise strategies for stimulation, compensation or education in general, or even to apply them judiciously, without constant reference to specific operational objectives. The choice of these objectives, both final and intermediate, can only be made on the basis of a diagnosis of the situation. The complexity of the problem is such that one cannot await complete and consistent scientific data before action is begun, and so one must make do with a diagnosis, though based as far as possible on scientific data, which is bound to be highly intuitive.

On this basis — and without regard for all the shortcomings in the diagnosis of the situation and the methods used for attaining the objectives — several different types of strategy for the stimulation of socially handicapped children have been developed.

Compensatory programmes are designed to reduce, more or less directly, the specific deficiencies or backwardness noted or suspected. The main purpose used to be to limit failure at school. The first programmes concentrated largely on helping socially handicapped children prepare for the primary level, and on making it easier for them to tackle subjects in which their disadvantages were most evident. These programmes were in the nature of direct training schemes designed to remedy scholastic deficiencies, concentrating first and foremost on vocabulary, pronunciation, the notion of quantities, etc. Although little attempt at rigorous evaluation of these programmes was made, it was clear that the results fell short of expectations and, moreover, that their effects were often negligible, and did not prove lasting. It is understandable that the influence — or lack of stimulation — of an underprivileged environment should re-assert itself on transition to a higher level, and that stimulatory action needs to be continuous. Surprising though it may seem, school holidays often suffice to cancel out the effects of compensatory programmes. Their effects did not extend to other domains, and new activities seemed to derive virtually no stimulation from previous compensatory activities. Compensatory action undertaken in one school year barely influenced the following year's work. The realisation of these disappointing facts has considerably changed the whole approach to the problem.

Methods of defining the problem

It does not suffice to compensate lack of experience and knowledge; pattern, activation, guidance, fundamental concept and operant level itself are involved. While the first programmes attached more importance to the acquisition of knowledge and techniques, we consider today that it is necessary to concentrate mainly on readiness and the operant level of abilities.

Many attempts have been made to stimulate readiness by organising specific usually artificial, exercises to develop certain aptitudes (such as manual dexterity, for instance). Many of them appeared to be based on the assumption that aptitudes can be stimulated just as muscles can be exercised.

Problems of performance at school and work, of intellectual development, etc. cannot be understood without reference to problems of personality, motivation, social relations, self-image, expectation level, ideal self, security level, etc. — all of which are influenced by socio-cultural handicaps calling for stimulation.

Even on the purely intellectual plane, the aspects needing stimulation are not really clear.

In view of the important part played by early childhood in the development of the personality and the various abilities, compensation was quickly directed towards the pre-primary level. Even day-

nurseries exercise an important influence on children's development, but their influence, until recently, was generally speaking not very beneficial. This implies, moreover, that the study of the characteristics of a child's development, interacting with the environment, continues to constitute an essential aspect of the problem, to which I shall return at greater length later on.

Although the school may offer, at all levels, opportunities (often unused) for compensation and stimulation, the question arises as to whether these opportunities can be used effectively without the collaboration of the family and without guidance at that level. As I have already emphasised, the general school environment and relations between the child and the teacher are of primordial importance. It must also be borne in mind that certain "delays" in child's development may only be symptoms of a complex condition.

In view of the different kinds of socially underprivileged milieu, the question arises as to whether or not an endeavour should be made to devise general compensatory programmes or specific programmes for certain underprivileged milieux. In view of the typological differences between families with the same background and in view of the great differences in individual reactions, it may be asked whether it would not be advisable to devise a stimulation programme applicable to all children (including the non-underprivileged), but providing for extensive individualisation.

Another important controversy has arisen over pre-primary education: should structured programmes with specific exercises or largely spontaneous education be provided? Structured programmes have the advantage of being based directly on educational gaps noted, but it remains for children to be given the necessary motivation, and for this kind of education to be adjusted to everyday reality. Spontaneous education involving the whole child may be more fundamental, but it depends largely on a stimulating context. In view of this problem, noted educationists consider that nursery school should offer a full range of opportunities for enrichment, that the teacher should be specially informed and trained for this task and in those techniques, and that it is she who must intervene positively when the opportunity occurs, in the context of activities which remain largely spontaneous. It is clear, however, that such tactics make demands on the teacher which she is not always able to meet. I consider that education, and stimulation in particular, call for a certain degree of structuring and programming. This means that we must be prepared to propose not merely objectives but also strategies, and even to put forward suggestions for the content of programmes and for practical activities considered effective for the attainment of the objectives selected. The planned structure must, moreover, not act as a dead hand on spontaneous or organised activities; it must not replace but rather supplement spontaneity. I am therefore in favour of a hidden curriculum which does not prevent spontaneity and makes it possible to organise activities which remain pleasant but fit into a strategy directed towards the achievement of specific objectives. As already stated above, this implies that teachers must be acquainted both with the operational objectives and the possible strategies, and thus be able to organise the requisite activities, exercise and experience in this context.

Teacher training

Compensation and stimulation imply adequate training of teachers, and in this field efforts should not only be concentrated on the "didactic" aspect: educational attitudes and the opportunities for human contact are of such importance that they should be cultivated in a systematic and practical way. Training in human relationships should take place before teacher training proper begins. It is important that the prospective teacher shall not take refuge in the subject to be taught and avoid meeting the "other", in this case, the child.

Ethological observation, the development of creativity at all levels, conversation technique, exercises in personal and cultural understanding, human contacts, empathy (social sensitivity and an attitude of humane understanding) possibly a form of sensitivity training etc., may have their place in teacher training at all levels. These points are important in the training of teachers in general, but they are doubly important when finally planning a realistic drive to give future teachers a better preparation in educating children of different social origins.

Action programmes

As compensatory programmes concentrate increasingly on the aspects which constitute the underlying causes of socio-cultural handicaps, and as they come to be implemented in the context of the whole of the personality and the milieu to which it is linked, they assume the form of action strategies. They do not concentrate directly, and certainly not exclusively, on the gaps to be filled: rather,

taking account of the practical situation and the child's personality as a whole the aim is "spontaneous" creative activation of tendencies and potentialities without losing sight of the objectives to be attained. The actual milieu and acquired experience form the starting point for these activities. Activation and stimulation do not incidentally exclude a certain degree of compensation, but it is as a rule less artificial, more closely integrated into the actual context and directly linked to all aspects of personality and motivation. The above remarks on the subject of compensation also constitute standards for activation strategies.

Evaluation

We have already stated that it is essential to evaluate the results of the strategies and techniques applied. The difficulties and disillusionment experienced during evaluation experiments show clearly how urgent it is to devote more study to this question of the evaluation of education in general and activation strategies in particular. It is, however, extremely difficult to make such an evaluation, because:

- the necessary techniques have still largely to be created; there are few scales for evaluating young children, and they are difficult to devise in such a way as to give a guarantee of validity;
- the dimensions taken into consideration depend on the data available, but they also affect future observations and results;
- it is difficult to form matched groups of children and even more difficult to maintain them without experimental mortality; this makes it particularly difficult to compare the evolution of an experimental group (subjected to a certain form of activation) with that of a matched control group;
- the number of known and especially of unknown variables is particularly high; they are difficult to define and circumscribe, and even harder to evaluate,
- the programme applied often has repercussions on groups not involved in the experiment because, for instance, teachers not taking part in the experiment change their attitudes or their techniques;
- the results of the first trials of a programme are often due as much to enthusiasm for an innovation as to the programme itself (Hawthorne effect), etc.

The problem under study has a normative basis which must be explained. This starting point and the diagnosis of social and psychological handicaps (there is a real interaction between norms and the results of the diagnosis) affect the objectives and intermediate objectives of education. It is on the basis of these data that the stimulation strategies must be established. The evaluation of the results is an operation which is as delicate as it is necessary. It is indispensable at these different levels of research:

- to define operational objectives and intermediate objectives;
- to make the diagnosis at the level of the child, the family and the school;
- to devise activation strategies;
- to evaluate strategies.

Generally speaking, the only kind of research which is both possible and effective, even for making a diagnosis, is action research.

In the activation of social handicaps, as in the developing countries, it is essential to act simultaneously at all levels and in all domains of the personality and the socio-cultural situation. Stimulation in a limited domain can neither be effective nor produce lasting results. What is needed is a concerted programme, taking account of all the interacting factors.

It is important, above all, not to lose sight of the fact that the whole of a child's personality and motivation is at stake, together with the characteristics and fundamental problems of the milieu, and the consequent possibilities for expansion, self-realisation, control and freedom from insecurity offered to the developing personality. An understanding of the child's mental structure and milieu is essential, and indeed provides the only possible basis for activation.

Compensatory education and perpetuation of social classes

Outline of a political sociology for the democratisation of education

by P. PERRENOUD,
Service de la recherche sociologique, Geneva.

In matters of education there exists no equality among the children of the various social classes. Anyone desirous of equality must therefore ask himself: What is to be done about it?

Sociologists cannot escape this question. But it is also their role to try to find out who wants to do something. Nothing is more important than the democratisation of education, say all political parties and movements in unison; but apart from declarations of intent what is the situation?(1)

Is there a political will?

Under what conditions and by what methods can individualised education overcome social-cultural handicaps? This question, the central theme of the symposium, has two aspects, which to simplify I will call psycho-educational and socio-political.

The psycho-educational aspect calls for an educational strategy which effectively neutralises socio-cultural handicaps; such a strategy must encompass the educational objectives, the curriculum, the methods of diagnosis, teaching and assessment, the manner in which pupils are grouped, the education aids and environment, relations between the family, the school and the peer group, and teacher training. The Belgian research around which the symposium has been organised is one source of material for replies, working hypotheses and instruments of analysis.(2)

Admittedly, no-one can claim to have discovered infallible general principles for an effective educational strategy designed to overcome socio-cultural handicaps. But it is no use seeking such principles unless there is a political will to apply them to the education system as a whole, once their worth has been proved. We have no reason to assume that such a political will exists generally. Even in Europe, few countries show constantly, other than by declarations of intent, any desire to change appreciably their primary and pre-primary education with a view to overcoming socio-cultural handicaps by means of compensatory education.

Admittedly, the degree of effectiveness of possible reforms remains uncertain. But uncertainty is equally great in matters of the economy, energy, population or defence, where decisions entailing great risks for equally great stakes are nevertheless taken.

Attitude to research

The best proof of the absence of political will is the demand for certainty before any decision is taken: it will be a very long time before any research centre, international organisation or group of experts can give a government the absolute assurance that a strategy will prove effective when applied to the education system as a whole, even if it rests on sound theoretical foundations and has proved its worth in experimental schools. Opinions may obviously differ on the feasibility of initiating now a general reform of primary and pre-com-

(1) It is impossible to give all the pertinent bibliographical references. I will therefore confine myself to the main ones, which generally contain references to more specific publications Bulletin No. 179 of the International Bureau of Education (UNESCO-IBE, 1973) contains a substantial annotated bibliography on the subject "Social background of students and their chances of success at school".

(2) Convergent research on diagnosing and compensating for socio-cultural handicaps of children aged up to 7-8 years is being carried out in Belgium by the Department of Genetic Psychology of the Free University of Brussels, the Department of Psychology of Ghent University, the Experimental Pedagogics Laboratory of Liège University and the Department of Pedagogical Research of the University of Mons, which all submitted their studies to a symposium held in November 1972 at Esneux. The papers were all published in a volume entitled *Recherche en éducation. Recherches sur les handicaps socio-culturels de 0 à 7-8 ans* (Brussels, Ministère de l'Éducation nationale et de la Culture française, 1973, 450 pages). For fuller references, see *Compensatory early childhood education. A selective working bibliography.* The Hague, Bernard van Leer Foundation, 1971 and Little, A. and Smith, G.: *Strategies of compensation: a review of educational projects for the disadvantaged in the United States.* Paris, OECD, 1971.

pulsory education based on the results of psycho-educational and sociological research. Perhaps these results are still too scattered, too dependent on local conditions, or too contradictory to support a general policy for the democratisation of elementary education. But it is highly probable that, if given the necessary means, educational research will progress sufficiently in the next five to ten years to determine the psycho-educational components of an effective strategy designed to overcome some socio-cultural handicaps. Any real political will to democratise education would then result at least in the provision of the means and freedom of manoeuvre on which research and experimentation depend; it would be equally important to institute communication and training networks and decision-taking procedures enabling the products of research to be integrated progressively into the way schools are run. One of the lessons drawn from known research is that no effective strategy for overcoming socio-cultural handicaps is conceivable in the form of a finished product for general application through bureaucratic channels. Action research is necessary not only during the phase in which the guidelines of strategy are devised but also when the strategy is adapted to highly diverse concrete situations.

Carrying schematisation to the extreme we could say that in a Western industrial society any political will to democratise education that existed outside election programmes should at least result in encouragement of research, diversification of controlled experiments, public discussion on the objectives and means of education and the training of teachers capable of taking part in action research: in brief, in the initiating of a process leading to the planning and subsequent implementation of a reform of elementary education aimed at overcoming socio-cultural handicaps. If a country's leading classes and political majority were anxious to take action, they would find in the body of research already carried out by research centres and in the recommendations already made by international organisations many suggestions for attenuating the effect of social inequalities on schooling without necessarily having to initiate any fundamental reform of elementary education structures and methods.

Absence of any desire for real democratisation

One is forced to the conclusion that among the countries which claim to provide equality of educational opportunity, few have taken any action to democratise elementary education. We must not be led astray by the multiplicity of secondary education reforms: At best these may make for greater equality of choice and of chances of success in secondary education, given equal development and attainments in primary education, an achievement which should not be under-estimated. But one can hardly hope for more, for that would mean eliminating inequalities accumulated over four to six years of primary schooling which, as we know from statistics, have close links with social origins. In any case, the reforms of secondary education structures are not aimed solely, or even mainly, at democratisation of education in the sense of neutralising the effect of social inequalities on schooling. The fact that such reforms have been completed or are in progress or planned in many countries is certainly not sufficient proof of a political will to democratise education. The need to act at elementary education level or even before is now recognised by all. Action at that level is therefore the sure sign of a political will. And such signs are rare.

Why have so few European countries made any move in the direction of democratisation of elementary education? Is it the cost of a reform which holds them back? The individualisation of primary education would certainly demand more time and educational resources per pupil. But it is not very realistic to argue on the assumption that the present primary education curriculum, with all the incomplete educational objectives that have been assigned to it in the course of time, will be maintained *in toto*. To rule out on principle any questioning of the details of the curricula and the educational objectives of primary education condemns to failure any attempt to find a strategy for democratisation.

In any case, if the cost of democratising elementary education were the sole reason why it is not done, this would simply mean that in the eyes of the governing groups and classes such democratisation is not one of those priority objectives for which the necessary funds can always be found which is another way of saying that there is no political will. Whenever resistance to change encounters loudly proclaimed values or projects it can always find a short-term justification — lack of resources, risk of failure, resistance to innovation by bureaucratic organisations, inadequate training or motivation of the social agents concerned, etc. All change has to overcome such obstacles, and if it takes place despite them that is because it is the expression of a long-term project and a political will which have equipped themselves with the means to overcome economic, institutional and suchlike obstacles.

I therefore take as my starting point the highly sacrilegious assumption that the ruling parties and classes in most western countries do not want true democratisation of education. In support of this thesis, I must try to describe the functions of social inequality in relation to the school and to determine the interests they serve. This will necessitate some more careful definitions, particularly with regard to the term "socio-cultural handicap".

Differentiation of habitus and socio-cultural handicaps

In all industrial societies the education system performs a function of cultural unification. But culture is more than an undivided whole passed on to each individual unchanged. The education system also, perhaps first and foremost, brings about cultural differences the most obvious of which concern what is often called "the general level of education", closely linked to the level of vocational qualification. Unequal levels of education and training give access to distinct positions within the system of division of labour, and thus within the hierarchical social class system. Cultural differences produced by the education system are therefore experienced in the form of inequalities which determine other inequalities and the occupational and social hierarchies.

At school and out of school each individual learns and undergoes lasting changes. To designate those characteristics of the individual which, though not constant, change sufficiently slowly to give a degree of stability and continuity to his behaviour and intellectual life, I shall borrow from Pierre Bourdieu the term "habitus" - a system of concepts, of patterns of thought, evaluation and action, of motivating structures.(3)

In societies with high attendance at school, the school exerts throughout childhood and adolescence considerable and continuous pressure with a view to changing the habitus acquired at the end of infancy to one that is more and more cultured. At the end of the socialisation and schooling process, certain key characteristics of the young adult's habitus will be the result of his schooling.

(3) Bourdieu, P. defines habitus as a system of durable and transposable aptitudes which, integrating all past experience, works at each instant as a matrix of perceptions, judgement and action and permits an infinite number of differentiated tasks to be accomplished through the analogical transfer of schemas allowing similar problems to be solved and through constant corrections of and according to the results obtained. Bourdieu, P.: *Esquisse d'une théorie de la pratique*. Geneva, Droz, 1973, pp. 178-179.

The education system changes the habitus of each individual pupil, and ensures that within each generation of pupils there is an inter-individual differentiation of habitus, which allows the reproduction of the forces prevailing in the labour and class system.(4) This means:

— that differentiation of habitus works towards making each individual conform to this or that socio-occupational profile;

— that distribution of the population according to the various occupational profiles permits an approximate balance between the movements and loss of manpower affecting the labour force.

The education system ensures the continuation of the class system not only by reproducing vocational qualifications, but also by inculcating and reinforcing certain values, concepts and schemas of action which constitute the common denominator of the members of one social class — their habitus or class sub-culture.

Whatever the school structure — common core, streaming, graded courses — there is a progressive differentiation of effective school learning, and hence of habitus. This differentiation begins right from the pre-primary and primary levels, even though the children follow the same curriculum, taught by teachers of comparable training in similar conditions.

The line of study followed upon entry to the secondary level merely gives formal sanction to the differences which are the product of four to eight years of supposedly undifferentiated education. The school evaluates these differences in terms of ability level, of level of school attainment, of success.

Statistics in all countries show that differences in levels of success are already present in the first months of compulsory schooling, even before the school has been able to exert a real differentiating effect, and that these differences become more important as time goes on.

The school therefore evaluates differences that date from before entry into school. Other differentiated skills acquired before or out of school are not eva-

(4) See Bourdieu, P. and Passeron, J.-C.: *La reproduction. Éléments pour une théorie du système d'enseignement. Paris*, Éditions de Minuit, 1970; and Bourdieu, P.: "Cultural Reproduction and Social Reproduction" in Richard Brown (ed.): *Knowledge, education and cultural change*. London, Tavistock, 1973.

luated as such, but they do not enable the pupils to assimilate in like manner an education which is the same for all. This leads to the same result. (5)

Genetic and socio-cultural heritages

These facts seemed quite right and proper as long as it was possible to attribute such differences, and the inequalities in scholastic performance they entail, to the development of unequal innate gifts which condition unequal intellectual development and ability to learn. Western culture does not hold society "responsible" for inequalities in genetic heritage. If, as was long thought certain, such inequalities determine inequalities in the IQ, can the school be blamed for taking account of these?

Without providing positive proof, developments in psychology have little by little shaken the theory of natural gifts, at least in its extreme form. No one can assert that genetic heritages do not play any part. But many studies bear out the thesis that an appreciable part of inequalities in intellecual development is due to environmental differences. It has also been shown that scholastic performance even in the early years of schooling is the product of specific training, especially linguistic, at least as much as it is the sign of a general level of intellectual development and is therefore the result of training outside the school, in which the family environment plays a considerable role.(6)

Even before children begin school their individual "habitus" become differentiated, probably as a result both of certain genetically determined potentialities and of different experiences in infancy, especially in the family circle. It must be recognised that even in scientific circles there is no consensus of opinion on the respective parts played by innate and acquired characteristics, by genetic and socio-cultural influences, in the differentiation of "habitus".

But, even making maximum allowances for the innate, it seems certain that the first inequalities in achievement at school are based at least in part on a socio-cultural differentiation in "habitus", which the school, though not producing, conserves by the mere fact of treating uniformly pupils who are in reality very dissimilar.(7)

The socio-cultural milieu probably influences at one and the same time the rate of sensory-motor and intellectual development, the genesis of personality and aspiration level, and the amount and nature of what is learned before and outside school that can be turned to good account in school. The development level, the personality and what is learned before and outside school determine, at the beginning of schooling entirely and subsequently very largely, the facility with which school curriculum is assimilated. What is more, an education system never evaluates the result of school learning alone, either because the abilities assessed are the combined product of what is learned in and out of school, or because the performances which demonstrate these abilities bring into play other skills (linguistic, etc.) which are not produced entirely by the school. In order to show that he can do arithmetic or can reason a pupil must usually be able to speak and write, and his ability to express himself plays a part in the assessment.

A standard imposed by the school

In brief it can be said that the school imposes on all pupils a standard cultivated "habitus" model which is reflected in many standards of scholastic performance. When they start school, children are not all equally close to this model, partly because certain living conditions favour mental development more than others and partly because through their educational practices and daily life some families succeed more than others in forming a "habitus" having affinities with the school's model. At the end infancy "habitus" differ not only in their distance from the school model but also in the presence and strength of such motivations to learn as would make it possible to approach the model.

In so far as inequalities in achevement at school are due to the diversity of socio-cultural backgrounds, we can speak of socio-cultural handicaps, bearing in mind that a handicap must be defined in relation to a standard. The concept of socio-cultural handicap reflects the fact that not all family

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(5) The habitus acquired in the home determines structuration of school experience (and in particular of the reception and assimilation of truly educational messages), the habitus transformed by the school's action, itself diversified, in its turn determining all subsequent experience (for example, work experience or the receipt and assimilation of messages produced and disseminated by the cultural industry, and so on from restructuralisation to restructuralisation. Bourdieu, P., op. cit. p. 188.

(6) See, for example, Lawton, D.: *Social Class Language and Education*. London, Routledge and Kegan, P. 1st edition 1968; Brandis, W. and Henderson, D.: *Social Class, Language and Communication*, London, Routledge and Kegan, P., 1970; Bernstein, B. *(ed.): Class, Codes and Control*. London, Routledge and Kegan, P., Vol. I, 1971, Vol. II, 1973; Lawton D.: "Recherches sur les rapports entre langage et école", *Orientations*, No. 46, April 1973.

(7) Bourdieu, P.: "L'école conservatrice. Les inégalité devant l'école et devant la culture", *Revue française de sociologie*, No. 3, July-September 1966.

environments predispose children equally to conform to the "habitus" model imposed by the school.

I repeat, a socio-cultural handicap is not an intrinsic characteristic of an individual but reflects the gap between certain individual characteristics and a reference model.

Some psychologists use this normative aspect as an argument against the concept of socio-cultural handicaps, basing their criticism on the idea that this concept derives from an unwarranted extension of a medical model to behavioural patterns with regard to which the distinction between normal and pathological is less clear than in health matters. However, it seems to me fundamental that even the seemingly most universal standards are cultural standards which one social group imposes on its or another group's members. The recent universality of medical standards is no doubt explained by the biological unity of the human species: but even here allowance must be made for the cultural domination of these classes and societies which favour scientific rationality.

However unwillingly, psychologists and educationalists help in establishing standards of development and of school achievement and so in defining, at least by implication, deviations from these norms. In that sense they are social agents like any others in the eyes of the sociologist, a fact which gives rise to problems in interdisciplinary discussion.

It is most important for psychologists and educationalists to relativise standards of school achievement and development and to question their measuring instruments. But it is hardly conceivable that these two disciplines should give up all aspirations to define standards of development and socialisation during infancy at the price of renouncing educational or therapeutical intervention entirely.

If norms are to be defined, then it also becomes necessary to define the deviants from the norms, in this case the scholastically or socio-culturally handicapped. There also remains the question whether the norms can be changed so as to allow of some cultural pluralism and not systematically favour children from the upper classes.

Social class and socio-cultural handicap

It is mainly children from the economically least privileged and politically most dominated social classes who have socio-cultural handicaps, so much so in leed that the concept of socio-cultural handicap often seems to imply by definition membership of the lower classes. I think this confusion is to be regretted, and my definition of a socio-cultural handicap is therefore without reference to the class to which a family belongs. A socio-cultural handicap exists as where variations in certain social and cultural characteristics of the family circle account, even without reference to innate abilities, for differences in rates of development or ability to assimilate the school curriculum or conform to the school's "habitus" model. The fact that such social and cultural variations are found to be related to social class is of course of the highest importance, but it does not entitle us to identify socio-cultural handicaps conceptually with their most frequent cause. It is all the more necessary to dissociate the two in analysis seeing that the dependence of a socio-cultural handicap or advantage on social class is only a matter of probability: the socio-cultural characteristics of some of the families in the executive and governing class are a handicap for their children and conversely not all working-class families contain the seeds of real socio-cultural handicaps for their children.

It is nevertheless true that, statistically the rate of intellectual development, motivation to learn and succeed, and the learning of things out of school that can be turned to good account in school depend in a large measure on social classes reflected in the educational level of the parents, in the kinds of interaction within the family circle, in the parents' educational practices, cultural resources and degree of availability, etc.

We know that families belonging to the same social class show, if not absolute uniformity, at least relative homogeneity in their ways and conditions of life, their attitudes and their behaviour. This relative homogeneity justifies us in speaking of a class condition or a class culture, provided we always bear in mind that this is a simplification, a reduction of diversity to its most typical and most frequent traits.

It happens that the conditions and cultures of the various classes do not predispose children equally to conform to the expectations of the school. Here it is necessary to repeat that these expectations are not the result of any universal need, but are social standards imposed on the children of all social classes by the groups which control or operate the education system, in other words by certain social classes or fractions of social classes.

Social heredity

I do not intend to dwell in greater detail here on all the ways in which class conditions and cultures

affect predispositions to succes at school.(8) The important fact is that inequality of opportunity as regards schooling, added to the other forms of inequality between social classes, is also a factor in the transmission of class membership from one generation to the next. This social heredity is certainly not absolute. Socio-cultural handicaps have only a statistical link with class; their presence or absence are not alone in determining school achievement, courses of studies and certificates obtained, and although the final course followed and any certificate obtained largely determine the individual's social position at the beginning of his career, they do not prevent mobility during that career from further weakening the relationship between the positions of father and son in the class system.

Without being general, the transmission of social position from one generation to the next is still a specific function of the education system, distinct from the function of perpetuating the class system. It should be noted that analytically the two functions are distinct. One relates to the family and the other to society as a whole. It is possible to imagine an inegalitarian class society being perpetuated by an education system even though this provided full equality of opportunity. If the probability of attaining a given social position were not to depend on the family's class membership, readiness to conform to the norms marking success at school would of course have to depend causally on neither class condition nor culture.

Redefinition of norms of success at school

One of the boldest ideas in democratising education would be to redefine standards of scholastic excellence in such a way that no social class on average predisposed its children to conform to them more than other classes predisposed theirs.

However attractive this idea may seem at first sight, it would be vain to imagine that norms of intellectual development and scholastic excellence can be changed without first or simultaneously changing the production system and the class system.

The democratisation of studies is thus not a project on its own, but part of a wider political project which runs the risk of being taken over on its left-wing by leftist extraparliamentary protest movements, whose main objective is not to increase social mobility but to create a society which achieves economic and political equality, not merely equality of opportunity entailing the fair redistribution of powers and privileges from one generation to another. (9) Once the model of society is challenged, the aim is not equality of opportunity, a reformist expedient, but just Equality.

The naïve psychology of the electorate

The ideology of natural gifts is still very widespread in public opinion in all social classes; outside the circles involved with the human sciences or education, the part played by the socio-cultural environment is unknown, under-rated or even denied. To uphold a policy of democratisation going beyond material action in the direction of compensatory education and the active neutralisation of socio-cultural handicaps, any party must enter into conflict with the naive innatist psychology of a proportion of voters. This is even true, perhaps particularly so, of the less educated social strata or classes which vote for the Communist and Socialist parties. The idea of hereditary gifts is deeply anchored in "popular wisdom".

Yet in western countries the only political forces which, outside election campaigns, constantly propose active measures to remedy socio-cultural handicaps are the left-wing and centre-left parties, supported by certain manual and clerical workers' trade unions, liberal intellectual human rights movements, some academics, educational research workers, specialist international organisations and a part of the teaching profession. The only apparent exception to this trend is the spread of pre-compulsory education, which is supported by almost all political tendencies and often put forward as the panacea for socio-cultural handicaps.

Pre-compulsory schooling and the democratisation of education

The role of pre-compulsory education

I should like to state at the outset that I think it a mistake to attribute to the mere fact of pre-compulsory schooling any great power to neutralise socio-cultural handicaps.

I do not deny that pre-compulsory schooling serves to prepare children for the demands of the compulsory schooling which follows. But that is not

(8) See in this connection Perrenoud, P.: *Stratification socio-culturelle et réussite scolaire*. Geneva, Droz, 1970.

(9) See, for example, Baudelot, B. and Establet, R.: *L'école capitaliste en France*. Paris, Maspero, 1971.

the question. If pre-compulsory education were reserved for children who are socio-culturally handicapped or presumed to be so because of their families' social position, compensatory action might be expected of the nursery school. But schooling for children aged between two and six years is demanded by all social classes more or less equally.

It is difficult to see how any government could dissuade the privileged classes from sending their sons or daughters to nursery school. The continued rise in the proportion of infants at school, which approaches 100% for children of four to five years in some countries, does not alter the fact that kindergartens and nursery schools are not intended primarily for socio-culturally handicapped children. How then can the mere fact of attending an undifferentiated nursery school help to neutralise socio-cultural inequality? It no doubt speeds up the development of all pupils and enables them to begin their basic learning, particularly linguistic, earlier. But there is nothing to suggest that the disparities between children will lessen. In education systems where nearly all children attend nursery schools, variations in success at the primary school do not seem to have been reduced in any way. It is no doubt desirable to spread pre-compulsory schooling if it raises the average level of intellectual, emotional or social development in children. But as long as such schooling is not differentiated or individualised it is wrong to regard it as the highway to the democratisation of education. The most we can expect of it is that it will:

— gradually accustom children to school, and this will perhaps be more beneficial to children whose family backgrounds differ most from the school world, its values and its standards;

— slow down the process of differentiation by family background, in that the nursery school takes the child out of this environment for a few hours a day.

The importance of this must not be under-rated but the distance between the child's social and psychological situation and the school with its rules — work, silence, order, attention etc. — is only one component of a socio-cultural handicap. It would be naïve to believe that by isolating a child from his family for a few hours a day from the age of three or four years onwards we will eliminate all the differences already apparent at the age, which moreover enable children from different backgrounds to benefit unequally from kindergarten experience. Why should the nursery school escape the cumulative process of amplification of differences, which is apparent at the very start of compulsory schooling?

It is, I think, sufficiently clear to anyone who really wants to democratise education that the development of pre-compulsory schooling, however desirable, is adequate. However, since the need to develop is widely agreed and is treated, often in good faith, as a strategy to compensate for socio-cultural handicaps, we must ask ourselves whether this agreement is not the sign of a political will to democratise, starting with infancy, in the temporary absence of any reform of primary education.

I believe that the answer to this question must be in the negative: a desire to democratise education is not the main driving force behind the spread of pre-compulsory schooling in Europe.(10)

Transfer of educational functions

Parents, particularly in the middle and upper classes, depend increasingly on the standards and ideas established by paediatricians, child psychologists, psychoanalysts and educationalists which are very widely disseminated by the mass media. Child specialists impose on parents an ideal image of development and socialisation; they also prescribe educational practices designed to ensure optimum development and balanced socialisation.(11)

Although they are less and less inclined to ignore or transgress the educational norms of theoreticians parents are not very sure of having the means and knowledge to observe them in practice; they have doubts about their own educational competence, the soundness of their reactions, the educational value of the family environment, their ability to organise play and creative activities, and to provide the young child with experience which will promote sociability or independence.

Why then is it surprising that more and more of them agree to delegate part of their educational tasks to kindergartens or nursery schools? Where these do not exist, or where there are not enough of them, parents set them up in co-operative form or bring pressure to bear on the authorities to develop pre-school education, unless the private sector gets this important market first.

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(10) See Blackstone, T.: *Pre-School Education in Europe*. Strasbourg, Council of Europe, 1970 (Studies in Permanent Education 13/1970); Plaisance, E. and Baudelot, O.: *L'évolution des objectifs de l'école maternelle*. Paris, CRESAS, Cahier No 9, 1973.

(11) See Chamboredon, J.-C. and Prévot, J.; «Le métier d'enfant. Définition sociale de la prime enfance et fonctions différentielles de l'école maternelle», *Revue française de sociologie, No. 3*, July-September 1973 p. 312.

If early childhood is redefined as an "educational object", this entails the transfer to a specialist educational organisation of socialisation functions which the family circle and its immediate environment discharged alone, before educational theories and norms stressed the crucial nature of the first years, when "everything is decided".

This transfer of educational functions to special organisations entails, in the usual sense of the term, the schooling of an increasing fraction of ever younger age groups. But it also represents a part of the schooling of society within the meaning of Ivan Illich: the taking over by the education system of tasks which were formerly, or could now be, dispersed or unorganised, or organised according to a model other than that of the school. ([12]).

While the transfer has its cultural roots in the theories and norms of child specialists, in the course of it these theories and standards have been absorbed by parents of the middle and upper classes and by those who operate the school system, including some who see in pre-compulsory education an opportunity to apply principles and methods — the active school, the role of play in learning, creative activities, plastic and corporal expression, etc. — which have found little acceptance in compulsory schooling.

Values motivating the spread of pre-compulsory education

The values motivating the spread of pre-compulsory education are mainly those of the upper classes and the more educated sections of the middle classes, which owe to their "habitus" the inclinations and abilities which confer respectability on scientific norms and cause them to absorb and apply them.([13])

This does not of course mean that kindergartens and nursery schools do not perform other functions, such as:

— taking care of a child while his mother is at work, resting, receiving treatment, pregnant, or busy with the rearing of other children;

— preparing a child for compulsory schooling by accustoming him gradually to school and teaching him the rudiments of the basic school subjects of reading, writing and arithmetic.

(12) Illich, I.: *Deschooling Society*. New York, Harper and Rowe, 1971.

(13) See Boltanski, L.: *Prime éducation et morale de classe*. Paris and The Hague, Mouton, 1969.

The function of child-minding is of importance to all social classes, and in any event its performance is independent of the content and objectives of pre-compulsory education. As for preparation for primary schooling, this seems to be desired more often by parents belonging to the working classes and the less educated sections of the middle classes.

In some countries where it has long been in existence, preparation for primary schooling was originally an important objective of pre-compulsory schooling in the eyes of those who operate the education system. This objective has not been lost sight of, but it has progressively become secondary to objectives which are less scholastic and more concerned with the development of the personality and sociability, aims which have always predominated in other countries where early childhood is seen as the age of play, of development of the personality, of learning participation in society and independence, and of creative expression. Everything happens as if, upholding these objectives, kindergartens will also actively compensate for socio-cultural inequalities.

This enables the education system to give the impression — and often convince itself — that it is anticipating the expectations of the lower classes with regard to preparation for compulsory schooling: expectations which, if only vaguely, reflect awareness of the socio-cultural handicaps from which their children suffer more than others. However, the socio-psychological training and knowledge of parents are generally inadequate to enable them to conceive, even less to express, doubts about the compensatory functions of the nursery school.

To sum up, I would say that the spread of undifferentiated pre-compulsory education directed towards non-cognitive development cannot be seen as a sign and outcome of a political will to democratise education except as the result of vote-catching post facto reinterpretations. No-one would worry about this if in fact, whether intentionally or no evidence that it does.

Compensatory education and school experiments

Before returning to my contention that in European capitalist countries it is not in the interest of the middle classes to democratise education fully, we must first ask ourselves the following questions. What is "real" democratisation of education? What effects may be expected of the neutralisation of socio-cultural handicaps?

To outline a reply I will take the hypothesis — that of reformist realism — of relative invariance of norms of development and of the main norms of scholastic excellence. Though neither the only one nor the best, this hypothesis is without a doubt the one which will receive the preference of political parties and movements seeking to anticipate the effects, and thus the advantages and drawbacks, of democratising education.

Very roughly, it can be said that a child's results at school (R) — his conformity with the school's "habitus" model — depend on his genetic heritage (G), his out-of-school experience (E) and his school experience (S):

$$R = f(G,E,S).$$

At the present time, the education system is endeavouring to give all pupils, at least during elementary education, roughly identical school experience. In this way it at best keeps the extent of variations in scholastic results within the limits imposed by variations in the genetic heritage and out-of-school experience. In that the "educational productivity" of school experience seems to depend on the genetic heritage and out-of-school experience, the education system would seem to tend to increase the extent of variations in scholastic results in relation to variations in aptitudes which are innate or acquired outside school.

Strategies for neutralising socio-cultural handicaps aim at giving every pupil i — individualised school experience S_i — to compensate for the variation attributable to the diversity of out-of-school experience.

In order better to grasp the effects of this differentiation of school experience, let us first suppose that the education system sets out to neutralise variations attributable to the genetic heritage as well as those attributable to out-of-school experience. It would then be necessary to give each pupil i school experience S_i so that:

$$R_i = f(G_i, E_i, S_i) = \text{constant}.$$

All pupils would then conform equally to norms of scholastic excellence.

The initial intentions of plans to democratise education do not generally go so far, for reasons which are not very clear. Some of them can nevertheless be imagined:

1. The diversity of genetic heritage is considered as natural inequality which does not call for correction to the same degree as social inequality;
2. Neutralisation of all out-of-school sources of variation in scholastic results would call for a diversification of school experience which would be impracticable in terms both of time and resources;
3. Uniformity of the level of scholastic results may appear as a step towards Utopia.

Rightly or wrongly, plans to democratise education aim at compensating for socio-cultural handicaps, not genetic ones.

This amounts to saying that the education system must so differentiate school experience that genetically equally "gifted" pupils attain the same level of scholastic results, whatever the diversity of their out-of-school experience. For two pupils i and j, if $G_i = G_j$ this must give $R_i = R_j$ in other words S_i and S_j must be so chosen that:

$$f(G_i, E_i, S_i) = f(G_j, S_j).$$

It will be recognised that even if this rudimentary formulation expresses the principle of the neutralisation of socio-cultural handicaps, it cannot apply to its practical implementation.

Compensation strategies

If it is impossible to determine what proportion of scholastic inequalities are attributable specifically to the diversity of socio-cultural backgrounds, how can they be compensated for? They cannot, it is not possible to achieve differentiation of educational experience that compensates exactly for socio-cultural handicaps and for them alone.

There are two possible solutions:

— to differentiate education according to the pupil's social class;

— to differentiate it according to the disparity between the pupil's actual "habitus" and the school's "habitus" model.

The former solution has been chosen in American programmes because of the concentration of economically under-privileged groups — often negroes or Puerto Ricans — in relatively circumscribed ecological areas. In the European countries it is less easy to identify such areas, and in socially more heterogeneous areas educational discrimination, however positive, based openly on any such criterion as social class or any of its indicators is barely conceivable. Democratisation of education cannot be confined to very poor areas, for

socio-cultural handicaps do not necessarily imply economic destitution, and they affect in varying degrees classes and sectors of society which are not all concentrated in clearly defined districts. (14)

For the purpose of general democratisation of elementary education, therefore, only the second solution seems adequate in the long run and on a large scale: to individualise, or at least differentiate by means of small groups, educational resources, learning time and teaching methods in such a way that each pupil comes as close as possible to a "habitus" model taken as a standard or reference point.

It would then no longer be a question of distinguishing between handicaps of genetic origin and socio-cultural handicaps in order to compensate selectively for the latter alone. But the thesis of genetic differences would probably be advanced to explain residual disparities between real "habitus" and the reference model, for it is probable that various constraints — time, resources, teachers, organisational problems — would prevent differentiation of learning conditions beyond certain limits, at least in a regional or national education system.

The differences which would not fail to persist would then inevitably be justified in terms of natural gifts.

The functions of the "status quo"

Reference level

To individualise education according to the disparity between the pupil's acquired level and the reference level, or more generally between his actual "habitus" and the school's cultural "habitus" model, this reference level or "habitus" model must be defined. It is very difficult to anticipate the choices which any education system will make, especially since the norms chosen determine in part the extent to which projects for homogenising scholastic knowledge are practicable. I will nevertheless attempt a few forecasts.

One possibility is to take as reference the average level of ability attained under a conventional education system by children from the culturally most favoured classes or sections of classes.

It will then be admitted that children from these classes are not on average "genetically more gifted" than those from other classes and that their generally above average success at school is due solely to the characteristics of their socio-cultural environment. To fix a higher reference level would mean increased investment in education even for children who on average are most favoured by their socio-cultural background; although feasible, this seems unrealistic. Inversely, it seems hardly possible, educationally and socially to invest far less in the elementary education of these children. If parents from the privileged classes have the impression that the school is limiting their children's level and speed of learning by fixing unduly low standards of scholastic performance, they will promote the spread of private schools which meet their aspirations, leaving official schools to the children of the middle and lower classes.

For the basic disciplines — the mother tongue, arithmetic, reasonning, etc. — it would seem sensible to lay down standards somewhere between the average level at present attained by all pupils, irrespective of origin (the lower limit) and the average level currently reached by pupils from the privileged classes (the upper limit).

Let us assume that a project to democratise elementary education adopts reference norms between these limits, and that the education system succeeds in devising an "education by objectives" scheme and adjustment processes (diagnosis and decision) making possible effective differentiation in what is learned according to the disparity between the actual level and the norm.

Essential changes

Three essential changes from a conventional education system would then be foreseeable:

1. A rise in the average level of attainment or ability for a given age;

2. A narrowing of the variations in individual levels around the average level (homogenisation);

3. A weakening of the statistical link between individual level and social origin.

These changes would disturb the functions:

— perpetuation of a hierarchical system of qualifications, and hence of the social class system;

— transmission from father to son of class membership, in particular, wealth.

It need scarcely be said that these effects would be produced only if the changes brought about in primary education were not systematically nullified

(14) Little, A. and Smith, G.: op. cit.

by secondary education and vocational training and guidance. But here we assume a political will for general democratisation of education, and this presupposes reforms of secondary education which extend the results obtained at the elementary level. As already pointed out, action confined to secondary education is unlikely to democratise education to any great extent. It is equally true that a strategy confined to primary education would be just as meaningless.

Why would the democratisation of elementary education, if extended to the secondary level, interfere with the perpetuation of a hierarchical system of qualifications, i.e. of the class system? Let us suppose that there is a notable and lasting rise in and homogenisation of the average level of scholastic ability. One of two things will then happen:

— either the same process will affect the level of occupational qualifications,

— or the maintenance of certain conventional selection mechanisms (hierarchical pre-professional courses, with stable distribution among them) would serve to dissociate scholastic ability and general culture from occupational qualification levels.

In the former case, the least skilled occupations — manual workers and junior employees — would not be provided for to the extent called for by the employment structure. This trend already exists in many European countries as a result of the spread of education below the grammar school level; the manpower shortage is provisionally made good by massive migration of unskilled workers from the least developed areas to the centres of industrial development. But this form of regulation has its limits in both the emigration countries, which are developing and creating employment opportunities for their nationals, and the immigration countries, which have many social problems to face (xenophobia, housing, etc.).

General democratisation of education would lead to a considerable extension of this phenomenon and result not in temporary imbalance but in a lasting transformation of the qualifications structure which would in its turn call for a change in the principles governing the division of labour.[15]

The dissociation of the level of scholastic ability from the level of occupational qualification — the second hypothesis — would lead by other means to the same results: it is difficult to imagine a large section of the active population accepting life-long productive work which is tedious, dirty, tiring, badly paid and imposed and supervised under a system of rigidly graded relationships by senior staff having the same level of education and general culture though with subsequent specialist and more complete occupational training.

It is difficult to say what the changes in the division of labour and production relationships would be. It seems probable that there would be a more egalitarian redistribution of duties, income and, above all power. This would amount to a change in the class system which only go against the essential interests of the economically dominant class, the owners and managers of the production apparatus.[16]

As for the increase in social mobility (less frequent transmission of class membership from one generation to another), it would endanger:

— the hereditary transmission of wealth and economic power, whose conservation presupposes occupational qualifications and general abilities which the working of the present education system generally secures to those who inherit property and economic power;

— the political and ideological homogenisation of the upper classes, for considerable social mobility between generations increases the contradictions between initial political socialisation (in childhood and early adolescence) and class membership;

— the fulfilment of an aspiration common to all parents but particularly so among the upper classes: to see their children succeed in society

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(15) It is also conceivable that many workers would be compelled to accept productive functions for which they were over-qualified professionally as well as scholastically. This is already happening in the case of holders of certain diplomas of university or semi-university level. But the spread of this phenomenon would lead us to the second hypothetical situation and aggravate it: a disparity would then arise not only between a high level of school education and a lower level of occupational qualification but between the relatively high occupational qualification acquired and the lower qualification level of the occupation actually filled.

(16) Once no part of the working population was doomed to perform the least skilled productive tasks, there would necessarily be strong pressure for every individual to perform both skilled and less skilled work during his life. This could happen either in the form of additional part-time jobs or by means of alternation between different jobs calling for diverse qualifications. In any event, the distinctions of income, power and status which mark the social classes would be weakened. It is also to be expected that a rise in the average level of schooling would have repercussions in the matter of political participation and the individual's independence of institutions.

as well as or better than themselves; while any increase in social mobility admittedly multiplies the chances of promotion, it also increases possibilities of retrogression from the family's position in the social strata.

In conclusion, I would say that there are good reasons for thinking that:

— real democratisation of education would go against the interests of the upper classes, either by making them less closed to the rising generations or by threatening their dominant position in the production system;

— the parties, organisations and trade unions which represent these classes are aware of these dangers, if only vaguely;

— they consequently help to maintain the status quo by opposing possible initiatives or at least not, encouraging, research and experimentation and, a fortiori such reforms of elementary education as might result.(17)

These hypotheses, which should obviously be elaborated much more fully and scientifically, are unlikely, at the present time, to be clearly invalidated or confirmed by systematic empirical data on the educational policies of the capitalist countries of Europe. The problem arises, moreover, in the countries of Eastern Europe, which are far from having achieved complete democratisation of education. However that may be, in view of the complexity and confusion of the facts, any interpretation of which has considerable ideological connotations, it is only natural that these hypotheses should seem improbable to some and banal and beyond doubt to others. Each individual's attitude is probably not unconnected with the class to which he belongs and with his ethical and ideological prejudices.

In fact, even though these hypotheses seem probable to me, everything induces me to hope that they are false and that real changes in elementary education will invalidate them in the years to come. There are enough people among the ruling classes who sincerely want democratisation of education, even if they are not always prepared to accept all its consequences, which sometimes — they cannot clearly perceive. It is my hope that a degree of independence of the educational system will set afoot profound and irreversible changes supported by all those who attach more importance to the idea of equality than to their class privileges.

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(17) Neither the unity nor the lucidity of the upper classes must be over-estimated: its intellectuals and university circles do not defend exactly the same values and interests as its political and bureaucratic sections — politicians and senior civil servants — or its economic representatives — directors and managers. Moreover, in such a complex field as this, where forecast are uncertain, it is not certain that the various parties and pressure groups involved in the decision-making process always act in a manner most consistent with their interests. Indeed, the various political tendencies have been unanimously in favour of some degree of democratisation of secondary education: what some have seen as a move towards greater equality os opportunity has been regarded by others as a way of replenishing the ranks of leading scientists and technicians.

Current trends in European pre-school research with particular regard to compensatory education

by K.-G. STUKÁT,
Göteborg University.

General trends

It is no doubt an appropriate time for a trend analysis. Even within a short period of time the pre-school research situation in Europe has changed considerably. The number of studies undertaken has increased. Large scale and programmed research is being carried out to a greater extent than in the past, and investigations are often part of bigger projects rather than single separate studies. Research grants are usually larger than was the rule ten years ago. Another characteristic feature of present pre-school research is that it is often related to current national problems in education. For example, a number of German projects (1) (2) (3) on the effects of different organizational patterns at the pre-school level are related to issues in the Strukturplan (4) such as the discussion of alter-

native methods of transition between the "elementary" and "primary" sectors. Likewise the Plowden report ([5]) with its recommendations concerning positive discrimination has given impetus to extensive research on educational priority areas ([6]).

Although the trends described here are not equally pronounced in all European countries, it seems justified to characterize the present situation as one of growing activity in pre-school research. This trend is a mirror and a function of society's interest generally in pre-school education at the present time, an interest which can be explained by a number of circumstances.

Factors behind current interest in pre-school education

People have become more and more convinced of the formative nature of early age, of the truth of the old saying that "the child is father of the man". Often cited to-day is Benjamin Bloom's conclusion from longitudinal studies that 50% of all changes in intelligence take place before the age of four years. These observations have often been combined with research findings reflecting the influence of environment upon child development. Greater optimism concerning the role of milieu factors has modified the belief in a genetically determined intelligence. This has given support to the demand for equality of educational opportunity and has also been a force behind the development of compensatory education for socially and culturally deprived children. In order to avoid simplifying the nature-nurture discussion unduly, it should be mentioned that heated arguments are still going on concerning the relative roles of heredity and environment.

Another factor accounting for the present interest in pre-school matters is the increased knowledge about the young child's learning and thinking ability. Even if not all of us are willing to subscribe to Bruner's bold statement that every subject can be taught in an intellectually honest way at every developmental level, there is enough information available to support the view that early childhood education has so far not taken full consideration of the young child's great learning potential. The growing number of experimental pre-school programmes is, however, a hopeful sign.

Numerous other circumstances contribute to the priority given to pre-school problems. Among factors outside school, the trend in family structure from large integrated collectives to small, often split nuclear families, with the mother being employed outside the home, has created a stronger need for care and education which can complement the home. Within the education system the problem of how to prevent school failure has in many countries led to increased efforts at the pre-school level.

Leaving aside further discussion of the probable factors behind the current interest in pre-school education, may I now turn to identifiable trends in European pre-school research, a good deal of which — perhaps most of it — is devoted to compensatory education and related problems.

Types of pre-school programme

If we first examine the nature of the compensatory programmes, a comparison can be made with developments in the USA which for the time being are ahead of European activity in this field. According to Weikart([7]), compensatory programmes, and pre-school programmes generally, can be grouped into three categories — actually four, but one is mere child-minding having no educational objective. It is to be hoped that this category is now outdated. One category includes child centred programmes, with a permissive environment, adaptation to the child's spontaneous interests, free play, interest areas, broad goal orientation towards development of the whole child. For their psychological rationale these programmes rely on Froebel and Gesell.

Another group is called "programmed curricula". These are characterized by highly structured and sequenced training directed to specific areas of competence and emphasize convergent thinking. Teacher initiative dominates, and the child's role is to be responsive. Generally these curricula rely on reinforcement principles.

The third type of approach is "open framework" or "cognitive stimulation" curricula. Basic functions rather than specific knowledge and skills are aimed at. The teachers are guided by principles and examples, but are free to adapt activities according to the needs and capacities of the child. The interaction pattern between teacher and child is one of dialogue. The basic psychological principles generally have their origin in the works of Piaget.

The first compensatory curricula in the USA were mainly of the child centred type, as exemplified by most Head Start programmes. The typical kindergarten programme was applied to the socially deprived children. As a consequence of the limited success of Head Start, there followed experimentation with new approaches, most of them belonging to the categories I have mentioned. In order to test

the relative efficiency of the different kinds of programme, systematic evaluations such as Planned Variation Head Start and Follow Through have been initiated.

In Europe it has been possible to learn from the American experience, and a somewhat different development pattern can be traced. Child centred programmes in their pure form have not as a rule been chosen for compensatory education. The tendency has been to apply more structured and learning-oriented approaches. However, extreme variants have been avoided. The Utrecht Language and Thought Programme ([8]) started as a highly structured and programmed interaction between teacher and child, but its successor "Differentiated Education" is more of the cognitive stimulation type with about equal weight being given to convergent and divergent thinking. The educational priority area activities in the UK have used the Peabody Language Development Kit which is a fairly structured programme, but it has become integrated in a language and perceptual training programme which also includes less formal situations. The methods adopted in the Belgian projects, e.g. the verbal reasoning programme and the visualmotor co-ordination test (Frostig) used in Ghent, as well as the concept development programme along modified Kamii lines used in Liège, are apparently fairly structured and goal-oriented, and probably have many features in common with the cognitive stimulation programmes in Weikart's scheme. In a project at the Göteborg School of Education ([9]) we have developed a pre-school curriculum as an alternative to the traditional kindergarten programme. It is not designed especially for socially handicapped children, but such children are integrated into ordinary pre-school groups. When the curriculum work started five years ago, it was influenced to a considerable extent by programmed curricula, but as it has turned out, the finished programme can best be described as of the open framework type, although goal-based and learning oriented.

A general statement about European compensatory programmes would thus be that they differ clearly from the traditional kindergarten programme, are learning-oriented and direct themselves more to basic perceptual and cognitive functions than to specific skills. It is probably also true to say that most of them try to assimilate features of the child centred programmes as well as some of the elements of programmed curricula.

Family involvement

The European experimental approaches to compensatory education are often characterized by the ambition to include in the action undertaken not only the child but also its family and in some cases the neighbourhood as well. This apparently increasing trend should not be compared with the situation in the USA, where far-reaching efforts of this kind are being made, for example in the Milwaukee project where contacts with parents of "risk children" are made even before the child is born. European activities reveal a clear awareness that such a broader social approach is necessary. (May I mention in parenthesis that Froebel regarded his kindergarten as a place not only for children but also for mothers to learn about upbringing.) Among the documents presented at this symposium the Mons paper is evidence of important actions taken: consultations with families, meetings with parents, home and parent education. One of the earliest European attempts to include the family in remedial pre-school action was made in the Dutch programme ([8]) in which visitors taught parents to observe their children, read to them and play games with them. At present various alternative models for family interaction are being tried out in that project.

Efficient family action can only be taken with adequate background knowledge. Several studies at different places aim at throwing light on various aspects of the family interaction problem. At the Centre de Recherche de l'Education spécialisée et de l'Adaptation scolaire (CRESAS) analyses ([10]) have been made, as parts of studies having similar objectives to those of the Brussels project, of factors in the home which handicap or favour development. A Danish study being carried out at present concentrates on the interaction between parents and children in the home. Attention is given to the child's total milieu and to the possibilities of integrating various family, child and social services into a coherent whole, for example by linking pre-school units, child-care centres and welfare agents.

Compensatory education scrutinized

A tendency in many quarters to take a critical look at compensatory education can also be regarded as a European research trend. Basil Bernstein among others has argued that the concept of compensatory education should be rejected on the grounds that it implies deficiencies in the child and its home, which must be compensated for by the school and the nursery school. One should rather indict the school system and its deficiencies, which are the real cause of the failure of many working class children. The sub-title chosen for this symposium, "From Compensatory to Individualized Education", is another symptom of dissatisfaction with the present situation. It is worth mentioning that in some countries, for example in Scandinavia,

compensatory education in the sense of separate classes for special groups of pre-school children is not under consideration. When I asked a group of Danish ministry and research people what they thought were the reasons for this, their answers reflected the opinions of Bernstein and those expressed in W. de Coster's and A. M. Thirion's papers. Some also pointed to the risk of compensatory education becoming a substitute for social action. An official view on the problem is expressed in a recent Swedish governmental proposal ([11]) in which active tracing of young children with particular needs and subsequent special remedial action for them are recommended. No distinction is made between children with social and those with other handicaps. Focus is on the individual child and its needs. It is interesting to mention in this connection that M. Stambak and M. Vial at CRESAS ([12]) have drawn attention to the danger of regarding failure in school as a pathological symptom when in reality it is caused by socio-cultural understimulation.

It should be emphasized that the critical attitude towards compensatory education does not imply that extra help should not be given to some children. There are many useful or necessary things that a child needs to learn and does not get the opportunity to at home. In such cases compensation is generally considered appropriate. Critics usually argue that compensatory education should be adapted to individual needs and should have broader aims than making the child fit for a school system with inflexible standards.

Diagnosis and evaluation

One aspect of compensatory education in great need of further development is assessment, both for diagnostic and evaluative purposes. Among the attempts to meet the demands for diagnostic instruments can be mentioned the Swansea Evaluation Profiles ([13]) which have been developed as a screening procedure for identifying those infant school entrants who need compensatory education. The profiles identify four groups of entrants who are likely to show learning problems.

When compensatory action is envisaged, diagnosis not only as regards the child but also as regards the environment should be carried out. One should not limit oneself to studying surface variables such as economic aspects, standard of living, social class, etc., but one should seek basic deprivation factors, an approach that is perhaps most consistently followed in the Brussels project. A similar endeavour to find functional determinants, e.g. attitudes, behaviour patterns and involvement, was the leading theme of a recent dissertation by E. M. Köhler ([14]).

Ideas and practice in the field of evaluation are characterized by growing sophistication. A very well-informed, stimulating and balanced discussion of evaluation problems in pre-school education is given in a recent book published by the German Council of Education ([15]) with recommendations by the educational commission. Among the many important issues taken up in the book can be mentioned the use and misuse of "hard", but often narrow, criteria (e.g. standardized tests); the use of intermediate criteria; the need for congruence between evaluation variables and the goals to be evaluated; the use of observation for evaluating the educational process; the need for longitudinal follow-up studies of individual children and the desirability of using different teams for formative and summative evaluation.

Another source reflecting the progress within the field of evaluation is the paper describing the Liège project, and that of A. M. Thirion. I need not go into detail but would like to mention the promise which apparently lies in the ethological approach, and the value of complementing effect or product evaluation with process analysis, particularly when used to see if what actually takes place in a pre-school programme corresponds with intentions or expectations. I have had a recent experience which testifies to the usefulness of such a procedure. When introducing a learning-oriented and moderately structured programme, we expected the interaction between teacher and pupils to be more "teacher centred" or "direct" than in the ordinary kindergarten programme. Observation revealed the opposite to be true, thus throwing a new light on the experimental programme.

Among the more promising trends in evaluation is the ambition to cover a broader range than has been usual. It is no longer acceptable to use a single IQ score as the only evaluation measure. Nor is it as a rule defensible to limit evaluation to the child's behaviour. Effects on teacher and parent attitudes, feasibility in the practical situation and economic consequences are examples of other kinds of evaluation parameter of interest.

Design problems

Evaluation is most often part of an experimental study of effects. There are few areas of educational

research which have been so seriously criticized in the past for unsatisfactory design as pre-school effect studies. Such authorities as McNemar[16] and Goodenough [17] did not find in the so-called Iowa studies much value as regards conclusions to be drawn. Most researchers in the pre-school field have, however, learnt from earlier experiences. The more recent effect studies are of an acceptable standard, and the conclusions from them have been drawn with due consideration to possible sources of error. A few years ago M. A. Brimer of Bristol University presented an interesting paper on design problems in pre-school experiments. It contained a good deal of useful information on this topic. His recommendations referred mainly to a basic research approach. Action research with continuous formative evaluation in a real-life setting evidently presents new problems for the researcher. In a 1973 issue of *Zeitschrift für Pädagogik* the problems of action research (or action-cum-research) are treated at some length.

Basic research in the pre-school field

Most of the expansion in pre-school research has occurred in the applied research and development field. Sometimes, as for example in the Belgian projects, basic research runs parallel or is integrated with action research. Sometimes basic research is stimulated by, but is not immediately related to, action research. Most research of this kind has been related to language and thought development. At CRESAS a number of such investigations have been carried out, for example, Lentin's study on the acquisition of syntax [18]. A similar problem, development of syntactic comprehension as a function of sex and socio-cultural influences has been studied by Parisi in Italy, and cognitive development has been the object of a study by a French group. As regards methodology, it is to be noted that a Piagetian line of approach is adopted and a testing approach is deliberately avoided. These are a few examples of quite a number of studies in an area in which European research, represented by Piaget, Wallon and Vygotsky, among others, has made unique contributions. In other developmental areas high quality research on pre-school education is also being performed, for example research on moral development by Kohlberg [19] and Kärrby [20].

Other areas of active pre-school research

Let me conclude this brief survey by noting some other areas of pre-school research in which activity is growing and probably will continue to do so in future years.

Analysis of pre-school goals:

Statements about goals are most often found in commission reports in connection with reform plans. In recent years matters related to goals have also been the object of research, for example in studies of teachers' goal conception and in analyses of congruity/incongruity between pre-school goals and general educational goals as well as between goal priorities and priorities in pre-school practice.

Transition to school:

A number of studies are under way which investigate new approaches to this problem, such as individualizing transition, non-graded arrangements including children both of pre-school and school age, and alternative ways of increasing curriculum continuity between the pre-school and primary school levels. Also belonging to this research area are studies of changes in children's self-concept related to the transition from the relatively non-competitive pre-school situation to the more achievement-oriented school.

Foreign language learning at the pre-school level:

Particular attention is given to the need for language stimulation of immigrant children. Different models to cater for both foreign and native language development are being tried out.

Teacher role and teacher training:

As a consequence of innovations in pre-school curricula the teacher's role is changing. Under study in current projects are team teaching problems, training for cognitive stimulation teaching, and training for broader social roles in pre-school education.

Media research:

A number of studies are devoted to the influence of mass media on pre-school children's attitudes and behaviour. In several countries developmental work is being done on educational television programmes for younger children and studies made of the effects of these programmes. An example of studies in this area is a project aiming at finding optimal co-ordination of educational television programmes and normal pre-school education activities.

Communication and dissemination

A final word about international co-operation in the field of pre-school research. As regards infor-

mation and communication, one can distinguish a clear positive trend. There have been a number of symposia and conferences in recent years at which researchers and educational administrators have met, e.g. in Venice, London and Jyväskylä ([21]) and now in Ghent. In addition there have been meetings of smaller groups, such as the Nordic Council's school symposium in Huerdalen in 1971. Research information is also beginning to be disseminated more efficiently in other ways. I would especially like to emphasize the value of the regular educational research surveys carried out on a national basis under the auspices of the Council of Europe. Another valuable initiative designed to improve efficiency in the field of research information dissemination is the establishment of the Van Leer Foundation clearing-house which has produced the bibliographic "Compensatory Early Childhood Education" ([22]). In spite of these efforts it is still somewhat difficult to trace all important research in the European pre-school field, as I have myself discovered in the course of gathering material for the trend report.

Direct co-operation between researchers and projects in different countries is so far somewhat undeveloped. I think, however, that the Belgian convergent project could serve as a good model for co-operation on an international basis. Much would no doubt be gained if research groups from different countries working in the same problem area could meet, exchange information and discuss common problems at suitable intervals.

Another form for international co-operation would be to make common efforts to solve important problems of general interest. An initiative in this direction has been taken by the Council of Europe by establishing a research group with members from different countries to work on pre-school evaluation problems. There are no doubt many other essential pre-school issues and problem areas in which European co-operation of this kind would be fruitful.

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RESEARCH : NEW PERSPECTIVES

Psychological and sociological characteristics of children who are disadvantaged by their milieu

Working Group Report.

1. Review of the concept of "handicaps"

Our entire discussion (1) was based on the unanimously accepted fact that a high percentage of disadvantaged children do not attain the level at school normally required of and reached by children from more privileged social backgrounds.

A. The psychopathological model

Having noted this fact we were led to think again about the concept of socio-cultural handicaps. For a long time most studies on failure at school have been based on the psychiatric and psychological tradition. "Maladjusted" children are primarily those who, to varying degrees and in different ways, are unable to keep up with the rest of the class.

When examining their difficulties, the methodology and concepts adopted are usually those of pathology: definition of categories (mental deficiency, dyslexia, inability to spell, inability to count), diagnosis of functional disabilities and of deficiences.

Without denying the need for such an approach, we questioned the one-sided picture it gave of failure at school. Several points were interpreted from this angle:

— The concept of normality in medicine is far more precise than in the sphere with which we are concerned.

— There is a lack of agreement as to the characteristics of under-privileged children in literature on the subject and in research conducted by some members of the group.

— This lack of agreement can be related to the nature of the instruments used. Constructed along traditional lines, they leave considerable scope for personal discretion when it comes to:

  • their construction (choice of items),

  • the interaction between child and adult during testing,

  • the norm-referenced interpretation of the results (statistical distribution).

For sometime, authors such as L. Crombach have been urging that a conceptual framework be found for the construction of instruments of evaluation. We note that there is no firm theoretical framework for the study of socio-cultural differences.

B. The disadvantaged child syndrome

In view of the present state of knowledge, it seemed unsatisfactory to draw up a list of the characteristics of children from disadvantaged backgrounds. However, others before us have tried to detect a syndrome specific to disadvantaged children.

H. Passow lays stress on their inability to make a set of values their own or to identify with the teacher. He portrays them as impulsive, hyperactive children, who think only in concrete terms, have little understanding of language or instructions, are incapable of concentration and disinterested in school life and learning situations.

(1) The text is based on the discussion of one the working parties of the symposium.

This attempt to list characteristics on the basis of the classical pattern shows in itself that almost all difficulties are defined in terms of the school. A new perspective as regards failure at school is needed. The school and the educational structure cannot be omitted when considering the roots of failure at school.

2. Basic research: new perspectives

Research could be centred on the relationships between the cultural norms transmitted by the school and those which a large number of children find in their family and in the community. Research could develop along the following three lines.

(1). Analysis of the school's cultural norms in the light of its objectives, the ideology of the teachers, and the teaching methods, exploring the following fields:

— study of official texts and their diffusion, of instructions given to teachers by inspectors, of the manner of their application locally;

— the teachers' ideas about education and teaching methods;

— classroom observation (content of teaching and class behaviour); study of teacher-pupil interaction and of the transmission of cultural values (interchange and resistance).

(2). Analysis of the cultural norms of the different social groups to which children belong, through a study of their families, the families' relations with the outside world, parents' expectations with regard to schooling, etc. (by means of observations of the ethnological type and talks with parents).

(3). Study of the child's psychological development: In this area the CRESAS team has expressed certain criticisms regarding genetic psychology which, seeking to formulate general rules, leaves aside "contingent factors". The general models do not supply adequate information on the observable differences between children in real life. Comparative studies, in particular, because they incorporate these models, result in a large section of the population being described in negative terms, which leads to an excessive extension of the notion of "deviation". The cause is rooted in the methodology itself, in so far as:

— The experimental situations are never described from the point of view of what they mean to the child; there is no evidence that the same situation has the same meaning for all children.

— The researcher, even if he can situate the child in a specific social milieu, knows nothing about the cultural norms of that milieu.

— The researcher himself, under cover of scientific neutrality, makes no allowance in his research for the fact that he himself is seen by the child as an adult and an adult from a particular social background.

This approach results in selection. Children who do not speak, refuse to take tests, etc. are eliminated from the sample.

Genetic research should, in future, take into account the following requirements:

— Situations should be sought in which all the modes of expression of all children can be observed.

— Theoretical instruments should be developed to analyse all behaviour and performances thus observed.

— The child's and the researcher's cultural norms should be incorporated in these theoretical models.

All such research could help to achieve a far more causal analysis of differences. As regards theory, the research would make it possible to determine the intermediary variables essential for an understanding of the process, and as regards methodology, instruments to measure these variables with greater accuracy could be constructed.

These basic research problems would call for a multidisciplinary team, possibly at international level.

EVALUATION OF ACTION

1. Compensatory education programmes

The first compensatory education programmes were mainly based on the psychopathological model. Research tried to identify the differences displayed by disadvantaged children by comparing them to more privileged children. This research was confined to studying the attitudes and abilities which predict success at school. Usually differences were interpreted as shortcomings to be compensated for by more or less specific training.

Deficiencies observed by means of norm-referenced intelligence and attainment tests determined the objectives and methods used.

Evaluation is as good as the measuring instruments used. Vague, general objectives are measured by

means of the IQ. Limited objectives are evaluated by means of very specific achievement tests. The classical pattern of verification (pre-test and post-test) and the instruments describing stages of development do not allow the process of behavioural change to be assessed.

2. Action research: new perspectives

Future programmes should extend beyond a correlational approach to a more causal approach with an appropriate conceptual framework and based on a situational knowledge of the child. Objectives should be defined with regard to the significance of the situations for the child (respect for a subculture) and to the optimisation of the educational process as a whole (values, content, methods of the programme).

In accordance with this line of thought, the idea of compensatory education and positive discrimination is replaced by that of mastery learning based on knowledge of the social context concerned.

Denouncing the inadequacy of the usual instruments of verification does not mean renouncing evaluation. On the contrary, it must become an integral part of the action, becoming part of the reflexive attitude which decision making, choice of methods of action, and verification of hypotheses demand.

Evaluation can take two forms depending how far the analysis is pursued and the juncture at which it is undertaken. Summative evaluation takes place at the end of an action and assesses it on the basis of soundings relative to each aspect of the programme. Formative evaluation is far more analytical and takes place while the process is going on, so that teaching can be constantly readjusted to enable the child to attain the criterion selected.

Improved rationalisation of evaluation objectives and procedures is necessary not only to optimise the children's behaviour but also to change the relationships between those responsible for education. Certain experimental results already show that it is possible to modify the school situation. Research undertaken by K-G. Stukát shows that a structured programme with clear objectives promotes the autonomy, creativity and initiative of the teachers.

With the establishment of an adequate system of evaluation, action research is focused not only on the educator-educated interaction but also on the teacher-researcher relationship. Formative evaluation enables the researcher to keep the teacher informed of the effects of action taken. This feedback not only provides a basis for adjusting teaching to the potential of each child, but above all for personal change in the teacher and the researcher.

It is vital to clarify the requirements of action research. The strategies and content of a particular type of programme should be made clear. It is vital to know exactly what happens in a given context. Formative and summative evaluation should be formalised so that the various stages in the process may be accounted for and so that hypotheses originally formulated against a conceptual framework may be checked. Clear definition of action research projects would guarantee both internal validity (conclusions valid for a particular situation) and external validity (conclusions that can be generalised to other situations).

CONCLUSIONS

Fundamental research could contribute to:

— a causal analysis of socio-cultural differences

- by the construction of formal models and the institution of the complex procedures which their evaluation necessitates;
- by the functional analysis of the interaction between the child and its family, school and local milieu.

— the development of instruments and methods which would indicate those variables which could be adapted to the objectives and intensity of the action.

These interdisciplinary research projects would permit a better explanation of the influence of the milieu on development, thus providing a surer, and hence more efficient, basis for the action.

Action research requires a rationalisation of objectives and evaluation procedures. The more precisely such research is described, the greater will be its true value for decision making at the political and educational planning level and for effective collaboration at the international reserach level.

Handicapped or different ?

Symposium conclusions

by G. DE LANDSHEERE,
University of Liège.

The reports by the different working parties which we heard at the end of our symposium illustrate yet again the usefulness of a dialogue between research workers and senior officials responsible for educational institutions.

It is encouraging to see how the various points of view, based as they are on reference frameworks and experience which are by no means all similar — as is illustrated by the different terminologies used — have gradually come closer together with the result that it has been possible for a set of coherent and harmonious conclusions to be reached.

True, it would be misleading to speak of a single approach either among research workers or among administrators. There are bound to be a variety of approaches because the problems to be solved vary considerably from one region to another, and also because we are still far from having fully grasped the facts we are trying to circumscribe and indeed explain. Nevertheless some salient aspects emerge clearly, and I shall concentrate on these rather than vainly try to do a neat summing-up of the reports and subsequent discussions.

In choosing a wording for the theme of the symposium, the organising committee was anxious to avoid any reference to compensating for socio-cultural handicaps. This desire and the fact that it was not entirely achieved may both be regarded as significant, for they are symptomatic of an educational ideal and outlook that are still heavily stamped with a social imprint which smacks more of charity than of egalitarianism. They signify an educational traditionalism whose influence (to some exent beneficial) is well known, and they denote how modest the progress made by educational science still is.

All the organisers would have liked to avoid the (on the face of it) pro-middle class overtones of the expression "socio-cultural handicap" as it is understood today. They would all have liked the problem to be approached simply in terms of educational action adapted to suit the individual. And this is one of the major conclusions from our discussions, a fact which must be regarded as gratifying.

I shall not go over the innumerable action programmes launched in the last ten years. The accumulation of total or partial failures has caused them to evolve very rapidly, so much so in fact that we can already divide them into three generations.

The first generation is represented by the large-scale but scanty Head Start programme and by action based on selective training aimed at short-term effects. The second generation is characterised by a proliferation of conventional educational resources, allowing of some degree of individualisation, and by the continuation of action in primary schools. The third generation seems to have reached the heart of the problem but has not yet solved it. The initial aim is to ascertain the real nature of cultural maladjustment, its origins, its dynamics and its specific features. As one working party aptly observed, various fairly precise physiological criteria are available for telling whether someone is in good health. But by what psychological yardsticks can we establish the existence of a cultural handicap? The first generation based its judgements on external standards deriving from the values of bourgeois society; the third generation is increasingly reluctant to do this. It lays stress on the role of schools themselves in the origins of such handicaps.

On the one hand, consideration is being given to the ways in which society and family and school environment are unsuited to the developmental characteristics of young children, and an attempt is being made to take appropriate action. On the other hand, a search is being made for a teaching system which will guarantee successful learning. The operational definition of objectives and the strategies of mastery learning, as well as formative evaluation, are gradually being put into effect, and the results promise to be substantive.

The insularity of the classroom

As several speakers pointed out during the symposium, in a country or region where the population is fairly homogeneous, the developmental characteristics of children from the lower social classes

cannot in any circumstances justify their being placed in an educational ghetto. The future seems to offer considerable opportunities for catering for groups of children with widely varying cognitive and personal characteristics, whose development will be fostered by a teaching system making use of the whole gamut of methods. One working party used a striking expression — "breaking down the insularity of the classroom". It was alluding to the use of multiple forms of organisation, ranging from activities involving all children belonging to a given level to pure individualisation, including the setting up of groups varying according to the needs of learning situations.

But what about populations that are socially or ethnically highly heterogeneous? In principle, we reject segregation in their case too. However, we would not like those whom we wished to help to be abandoned or deprived in the name of the brother-hood which should unite the whole human race or in the name of an ideal of democratic education to which we unconditionally subscribe. Here we have one of the paradoxes of recent years, when educational romanticism has undergone a revival which we should have the courage to explain; namely that, when wrongly applied, theories which are both benevolent and sensible, such as those relating to non-directivity, become prejudicial to the very persons they are designed to help.

I was struck by the remark W. De Coster made about developing countries. Clearly, these countries possess a highly respectable culture, functionally suited to the actual conditions of life. But does this authenticity, this closeness to reality, mean that no action at all should be taken? Certainly not. At least, not if the peoples themselves want to do something about their poverty and lack of facilities and participate in the intellectual and material life of the richer countries. A process of acculturation should then be set in motion and encouraged.

Just as only a hospital can effectively treat some illnesses once they have reached a certain degree of seriousness, so there are cases of socio-cultural maladjustment which are so acute that special action is necessary — such as cases involving an ignorance of the language in which teaching is done, or a set of values and attitudes radically opposed to those underlying the school system of the host country, or experiences of life that are too different from those on which education is based. For, as I hardly need to remind you, learning is possible only in a meaningful situation, and in education a situation is not meaningful unless perception and communication can be based on a sufficient number of parameters shared by a teacher and his pupils.

A multiple approach

Consequently, as W. De Coster rightly pointed out in his introductory lecture, there is no single solution to the problem we are dealing with. The Educational Priority Areas of Liverpool or Birmingham differ radically from Brussels or Liège; the extent of a child's cultural maladjustment in Sweden is quite different from that of one belonging to a poor family in southern Italy.

Our symposium has had the sense to reject any universal remedy for universal ills; in other words, we have rejected any magic formula.

The four Belgian research projects seem to me to provide an interesting example of the value of a multiple approach, combining co-ordination of effort (and hence rational use of resources) with freedom in the choice of a line and field of study and of study methods and instruments. They also illustrate how much may be gained from reciprocation between research and action.

The global approach to problems, covering a whole psychological situation which would lose its significance if split up, has sometimes been contrasted with a procedure which is more analytical as regards both diagnosis (mainly done by testing) and efforts to deal with specific factors. We feel that there cannot be any real hope unless these two points of view are reconciled. Scientific action on such a complex and changeable entity as a child or a group of children must in my opinion, oscillate between the consideration of microcosmic situations and the progressive analysing of components.

Both the child and society come to be modified at the same time. And as the limits to the action are clear on both sides, there is once again a basic oscillation between assimilation and adaptation.

At the risk of being somewhat repetitive, I should now like to explain my chain of thought more systematically.

Over and above the wide variety of methods and strategies, there seems to be unanimity on several points:

— In absolute terms, no normal child is ever handicapped; but he may be different from a refe-

rence group which happens to be predominant. It is important to stress this point: those who have been called socio-culturally handicapped are far from always being in the minority. There are more working-class children than middle-class children in industrial areas; there are more black children than white in state schools in Washington.

— The mechanisms of cognitive or personal development are complex and are not yet fully understood. Any action which does not bear on the very dynamics of this development remains superficial and ephemeral. Consequently, the Council of Europe should include the expansion of basic research into pre-school education among its priorities.

— The very complexity of the basic research to be done (including research into methods of evaluating development) necessitates co-ordination of effort and systematic international co-operation.

— To avoid too academic an approach that would cut it off from social life and prevent it from providing at least provisional solutions, such research should always include development and action research.

— Action on the least privileged members of society often has only a superficial effect once they have become parents, since their attitudes, cognitive skills and language cannot be quickly adapted at that stage. More often than not, it is possible to do nothing more than give simple practical advice and pass on educational hints. The action would probably have far more influence if it were conducted before marriage, at school or in factories. It should be possible for employees to receive instruction in educational methods during the time they are allowed off from work for the purposes of continued education.

— As soon as a child begins to receive regular education (i.e. in Belgium, when he first goes to a pre-nursery school at the age of two years if not earlier), there should be a proper curriculum for him.

In other words, with educational objectives unambiguously defined, guidelines for action, methodology and the system of evaluation would be clearly stated and, what is more, under continous review. This does not mean that pre-school education should be "technocratised". Nevertheless, the existence of a curriculum, preferably a "hidden" one, giving full scope to teachers' instuitiveness, does seem essential.

A radical institutional change should be made in pre-primary education. All too often, present-day nursery schools, even if they use active methods, foreshadow formalised education designed to inculcate middle-class standards, thereby creating, even at this early stage, a dichotomy between manual and intellectual work.

The best arrangement for the future appears to be a community centre as adumbrated by the educational centres described by A. H. Halsey or by kibbutz education or by the centres for young children proposed in Belgium. We need to set up permanent places for action and reception which eschew the scholastic aspects of what have nevertheless been called "kindergartens" and offer an environment where parents can feel at home with their children and where the family planning centre, the ante-natal clinic, the medical and psychological clinic, the crèche and the kindergarten are naturally integrated.

— Special attention should be paid to entry to primary school, as it is essential that there should be continuity with the education provided at the pre-primary stage. It seems increasingly certain that the key to success lies in individualised teaching, geared to mastery learning and based on formative evaluation. Consequently, a huge research effort should be made forthwith for the experimental elaboration of curricula, learning units and measuring instruments.

— Unless sufficient staff are recruited and given suitable training, there can be little hope of adequate action being taken. Teachers, having children in their charge as they do, sometimes all day long, are undoubtedly the chief protagonists in the action. Their attitudes are often the determining factor. In addition to the drawing up of new curricula for initial and further training, a lengthy propaganda campaign should be launched with the aim of gradually improving the prestige of pre-school teachers. Their status should be raised at the same time.

What practical contribution can the Council of Europe make towards solving what is perhaps the main educational problem of our time and undoubtedly the key to the democratisation of education, or to equality of opportunity, which amounts to the same thing?

Its contribution could be three-fold, I think. First of all, it is important that ministers of education be rapidly convinced of the need to invest sufficient money in fundamental research, develop-

ment research and action research, all three of which should, be kept linked together. Here, stress should be laid on the meagre value of most short-term research. In many cases, it evidences a profound ignorance on the part of those who undertake it or commission it.

Governments of industrialised countries which have still not realised that substantial financial provision for pre-school research and action is a highly productive investment, are frittering away a key part of their countries' potential.

In more concrete terms, it might be hoped that the excellent exchange of views between research teams that has taken place at this symposium will continue on a regular basis. It may be imagined how useful would be a series of one-week seminars, held once or twice a year, for the purpose of either making a joint review of one another's progress or discussing some specific aspect. My own preference would be for the latter possibility, since information of the more general kind can be communicated more easily.

Finally, the Council of Europe could perhaps help to launch an international project in which cultural and institutional differences were independent variables their great interest having been revealed by research such as that of the IEA.

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